KV-E2531D/E2931D/E3431D
KV-E2531B/E2931B/E3431B

RM-830 RM-830 RM-832

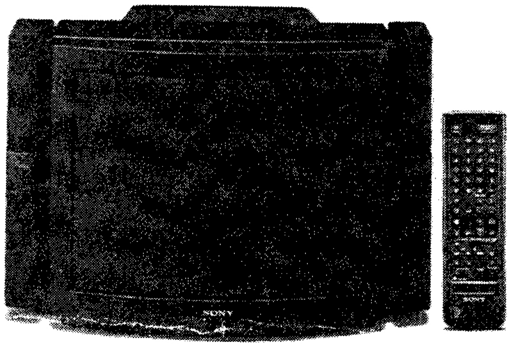
SERVICE MANUAL

AEP Model

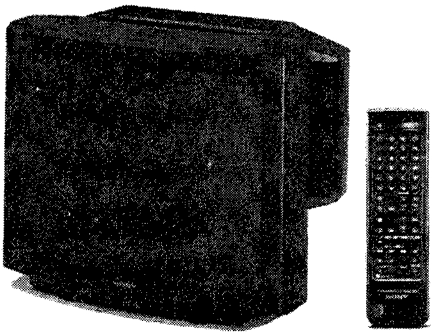
KV-E2531D
Chassis No. SCC-F18A-A
KV-E2931D
Chassis No. SCC-F18B-A
KV-E3431D
Chassis No. SCC-F18C-A

French Model

KV-E2531B
Chassis No. SCC-F32A-A
KV-E2931B
Chassis No. SCC-F32B-A
KV-E3431B
Chassis No. SCC-F32C-A



(Photo : KV-E2531D/ E2931D, E2531B/ E2931B) RM-830



(Photo : KV-E3431D, E3431B) RM-832

AE-2 CHASSIS

MODELS OF THE SAME SERIES	
KV-E2531D/E2931D/E3431D	
KV-E2531B/E2931B/E3431B	

SPECIFICATIONS

【KV-E2531D/E2931D/E3431D】

Television system	B/G/H, D/K
Channel coverage	PAL B/G/H VHF: E2-E12 UHF: E21-E69
	CABLE TV (1) : S1-S41
	CABLE TV (2) : S01-S05, M1-M10, U1-U10
	ITALIA VHF: A-H2 (C) UHF: 21-69
	D/K VHF : R01-R12
	UHF : R21-R69

【KV-E2531B/E2931B/E3431B】

Television system	B/G/H, D/K L, I
Channel coverage	L VHF: F02-F10 UHF: F21-F69
	CABLE : B-Q
	B/G/H VHF: E2-E12 UHF: E21-E69
	CABLE TV (1) : S1-S41
	CABLE TV (2) : S01-S05, M1-M10, U1-U10
	ITALIA VHF: A-H2 (C) UHF: 21-69
	D/K VHF : R01-R12
	UHF : R21-R69
	I UHF: B21-B69

Color system	PAL, SECAM, NTSC3.58, NTSC4.43
Stereo system	GERMAN stereo
Picture tube	Hi-Black Trinitron tube
	Approx. 63 cm (25 inches)
	(Approx. 59 cm picture measured diagonally)
	110 ° -degree deflection
	Approx. 72 cm (29 inches)
	(Approx. 68 cm picture measured diagonally)
	110 ° -degree deflection
	Approx. 86.0 cm (34 inches)
	(Approx. 80.0 cm picture measured diagonally)
	110 ° -degree deflection

-Continued to next page-

TRINITRON® COLOR TV
SONY®

MICROFILM

Inputs/Outputs Terminals

(REAR)
⇥ 1 21-pin Euro connector
(CENELEC standard)
Inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

↦ 2/⇥ 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

↦ 4/⇥ 4 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (monitor out)

⇥ 2, ⇥ 4 S video inputs
- 4 pin DIN

⇥ Audio inputs (L, R) -phono jacks
↦ S video output - 4 pin DIN
↦ Audio outputs - phono jacks
↦ Audio outputs (variable) - phono jacks
External speaker terminals : 2 pin
Woofer terminal : 2 pin

(FRONT)
⇥ 3 Video input-phono jack
⇥ Audio input-phono jacks
⇥ 3 S video input 4-pin DIN
∩ Headphone jack : Stereo minijack

Sound output	2×11W RMS (side speakers), 35W music power (woofer) 2×30W (side speakers), 35W (woofer)
Power consumption	106.5Wh (KV-E2531D) 108Wh (KV-E2531B) 115Wh (KV-E2931D) 122Wh (KV-E2931B) 139Wh (KV-E3431D) 139Wh (KV-E3431B)
Dimensions incl.speakers	Approx.756 x 493 x 468 mm (w/h/d) (KV-E2531D/E2531B) Approx.837 x 553 x 513 mm (w/h/d) (KV-E2931D/E2931B) Appro. 822 x 659 x 587mm (w/h/d) (KV-E3431D/E3431B)
Weight incl.speakers	Approx. 40 kg (KV-E2531D/E2531B) Approx. 53 kg (KV-E2931D/E2931B) Approx. 78 kg (KV-E3431D/E3431B)
Supplied accessories	RM-830 Remote Commander (1) (KV-E2531D/E2931D/E2531B/E2931B) RM-832 Remote Commander (1) (KV-E3431D/E3431B) IEC designation R6 batteries (2)
Other features	Digital comb filter (High resolution) PIP (Picture-in-picture) TOPTEXT

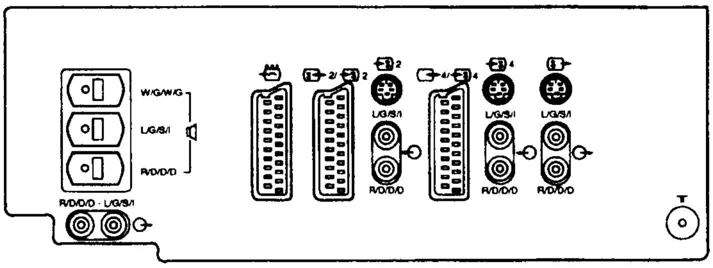
【RM-830/832】

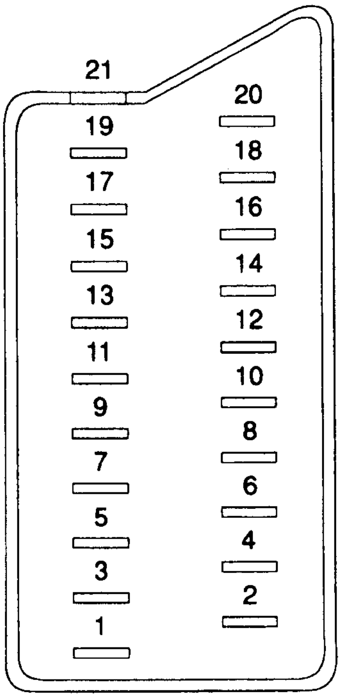
Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimentions	Approx.65×222×21mm (w/h/d)
Weight	Approx.157g (Not including Batteries)

Design and specifications are subject to change without notice.

Model name Item	KV-E2531D	KV-E2531B	KV-E2931D	KV-E2931B	KV-E3431D	KV-E3431B
Pal Comb	ON	ON	ON	ON	ON	ON
PiP	ON	ON	ON	ON	ON	ON
RGB Priority	ON	OFF	ON	OFF	ON	OFF
Woofer Box	ON	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front In (3)	ON	ON	ON	ON	ON	ON
Scart 4	ON	ON	ON	ON	ON	ON
Dyn.Convergence	OFF	OFF	OFF	OFF	ON	ON
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AxB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	ON
Norm I	OFF	ON	OFF	ON	OFF	ON
Norm D/K	ON	ON	ON	ON	ON	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	ON	OFF	ON
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm N	OFF	OFF	OFF	OFF	OFF	OFF
Language Preset	Deutsch	Francais	Deutsch	Francais	Deutsch	Francais

21 pin connector (⊖1, ⊖2/⊖4)



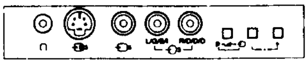


Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance:less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level:0.5Vrms Input impedance:More than 10kohms*
3	○	○	○	Audio output A (left)	Standard level:0.5Vrms Output impedance:less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level:0.5Vrms Input impedance:More than 10kohms*
7	○	●	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5—12V):Part mode Low state (0—2V):TV mode Input impedance:More than 10kohms Input capacitance:Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal:0.7V±3dB. 75ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground(red)	
14	○	○	○	Ground (blanking)	
15	○	—	—	Red input	0.7V±3dB, 75ohms, positive
	—	○	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance:75ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V±3dB, 75ohms, positive Sync:0.3V(−3, +10dB)
20	○	—	—	Video input	1V±3dB, 75ohms, positive Sync:0.3V(−3, +10dB)
	—	○	○	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync:0.3V(−3, +10dB)
21	○	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * At 20 Hz—20kHz

4 pin connector (⊖)

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V±3dB 75ohm, positive Sync 0.3V$^{-3}_{+10}$dB
4	C (S signal) input	0.3V±3dB 75ohm, positive



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(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTCIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

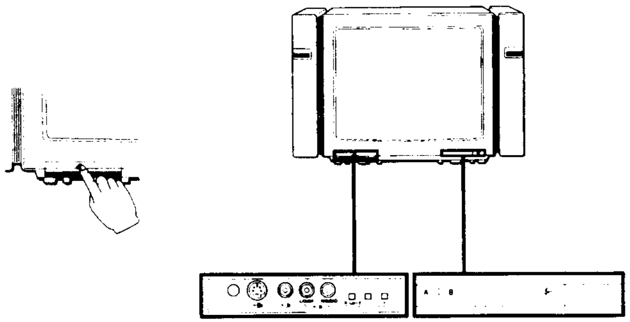
SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. OVERVIEW

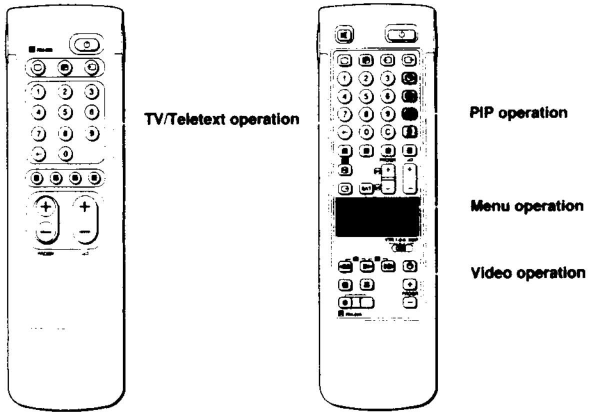
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set - front



Symbol	Name	Refer to page
ⓘ	Main power switch	42
⏻	Standby indicator	42
A-ↀ-B	Stereo A/B indicators	44
Ω	Headphones jack	50
⇥Ⓢ 3, ⇥◯ 3, ⇥◯ 3,	Input jacks (S-video/video/audio)	50
P→Δ→◯	Function selector (Programme/volume/input)	43
–/+	Adjustment buttons for function selector	43

Remote Commander



Note
The SAT button does not operate with this TV

Simple side

Full-Function side

TV-operation

Symbol	Name	Refer to Page
🔇	Mute on/off button	43
⏻	Standby button	42
▢	TV power on/TV mode selector button	42
⊜	Teletext button	43
⇥◯	Input mode selector	43
◯→	Output mode selector	51
1,2,3,4,5,6, 7,8,9, and 0	Number buttons	42
–/– –	Double-digit entering button	42
C	Direct channel entering button	41
■–	Volume control button	42
PROGR +/–	Programme selectors	42
▣▣	Teletext page access buttons	47
●	Picture adjustment button	44
♪	Sound adjustment button	44
⊕	On-screen display button	43
⊕	Teletext hold button	47
⊙	Time display button	43
■■■■	Fastext buttons	47

PIP (Picture-in-picture) operation

Symbol	Name	Refer to Page
◔	PIP on / off button	46
↑	PIP source selector	46
◔	Swap button	46
◔	PIP position changing button	46

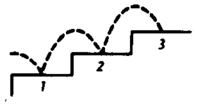
Menu operation

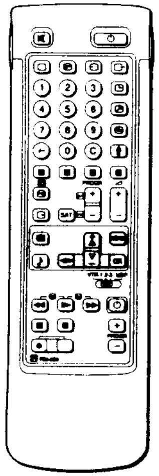
Symbol	Name	Refer to Page
MENU	Menu on / off button	36
+/ –	Select buttons	36
OK	OK (confirming) button	36
←	Back button	36

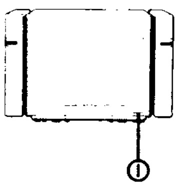
Video operation

Symbol	Name	Refer to Page
VTR1/2/3 MDP	Video equipment selector	52
◀◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/–	Video equipment operation buttons	52

1-2. TUNING IN TO TV STATIONS







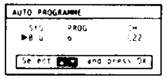
To go back to main menu
Keep pressing ⇐

To go back to the normal TV picture
Press MENU.

Note on the Demo function
If you choose Demo on the main menu, you can see a sequential demonstration of the menu functions.

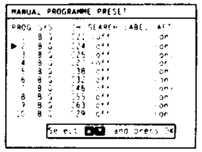
Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.



```
AUTO PROGRAMME
   SYS      PROG          CH
▶B/G        0            C22
 Select ▲▼ and press OK
```

Auto Menu



```
MANUAL PROGRAMME PRESET
PROG SYS   CH SEARCH LABEL   AFT
Select ▲▼ and press OK
```

Manual Menu

Before you begin

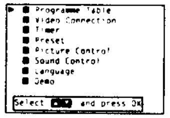
- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

❶ Display the Menu

1 Depress ① on the TV.

The TV will switch on. If the standby indicator on the TV is lit, press ○ or a number button on the Remote Commander.

2 Press the MENU button.
The main menu appears.



```
▶ ■ Programme Table
  ■ Video Connection
  ■ Timer
  ■ Preset
  ■ Picture Control
  ■ Sound Control
  ■ Language
  ■ Demo
 Select ▲▼ and press OK
```

Fig. 1.

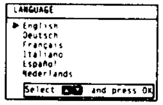
❷ Choose a language

1 Select `Language` with the Δ+ or ∇– button and press the OK button.
The `LANGUAGE` menu appears. (See Fig. 2)

2 Select the language you want with Δ+ or ∇– , press OK, and then press ⇐.
Now, choose one of the following methods
"Preset Channels Automatically"

or

"Preset Channels Manually".



```
LANGUAGE
▶ English
  Deutsch
  Français
  Italiano
  Español
  Nederlands
 Select ▲▼ and press OK
```

Fig. 2.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting
Press ⇐ on the Remote Commander.

Notes
• After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see "Using the Programme Table" on page 45.

• You can exchange the programme positions to have them appear on screen in the order you like. For details, see "Exchanging the Programme Positions" on page 39.

❸ Preset channels automatically

1 Select `Preset` with + or – and press OK.
The `PRESET` menu appears. (See Fig. 3.)

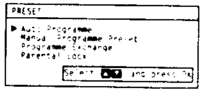
2 Select `Auto Programme` with + or – and press OK.
The `AUTO PROGRAMME` menu appears. (See Fig. 4.)

3 Press OK.
Select if necessary the TV broadcast system with + or – and press OK. (B/G for western European countries, D/K for eastern European countries) The first element of the "PROG" number will be highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with + or – or the number buttons (e.g. For "04", select "0" here) and press OK.
The second element of "PROG" will be highlighted.

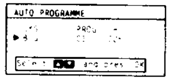
5 Select the second element of the double-digit number with + or – or the number buttons (e.g. For "04", select "4" here) (See Fig. 5.) and press OK.

6 Select "C" or "S" with + or – and press OK.
The automatic channel presetting starts.
When presetting is finished the preset menu reappears.
All available channels are now stored on successive number buttons.



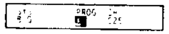
```
PRESET
▶ Auto Programme
  Manual Programme Preset
  Programme Exchange
  Parental Lock
          Select ▲▼ and press OK
```

Fig. 3.



```
AUTO PROGRAMME
   SYS        PROG    CH
▶B/G
 Select ▲▼ and press OK
```

Fig. 4.



```
SYS          PROG   CH
B/G                 C25
```

Fig. 5.

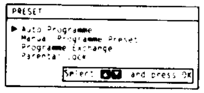
Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake
Press ⇐ to go back to the previous position.
To go back to main menu
Keep pressing ⇐.
To go back to the normal TV picture
Press MENU.

❸ Preset channels manually

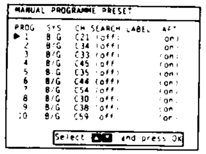
1 Select `Preset` with + or – and press OK.
The `PRESET` menu appears. (See Fig. 6.)

2 Select `Manual Programme preset` with + or – and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 7.)



```
PRESET
▶ Auto Programme
  Manual Programme Preset
  Programme Exchange
  Parental Lock
          Select ▲▼ and press OK
```

Fig. 6.



```
MANUAL PROGRAMME PRESET
PROG   SYS   CH SEARCH LABEL   AFT
▶ 1    B/G   C21 (off)         (on)
  2    B/G   C34 (off)         (on)
  3    B/G   C33 (off)         (on)
  4    B/G   C45 (off)         (on)
  5    B/G   C35 (off)         (on)
  6    B/G   C44 (off)         (on)
  7    B/G   C54 (off)         (on)
  8    B/G   C30 (off)         (on)
  9    B/G   C38 (off)         (on)
 10    B/G   C59 (off)         (on)
      Select ▲▼ and press OK
```

Fig. 7.

To tune in a channel by frequency
After selecting F in step 5, enter three digits using the number buttons.

3 Using + or –, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Select if necessary the TV broadcast system (B/G for western European countries, D/K for eastern European countries) or a video input source (EXT) with + or –.
Then press OK. The CH position will be highlighted. (See Fig. 8.)

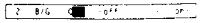


Fig.8.

5 Using + or –, select C (to preset a regular channel), or F (to tune in by frequency) and press OK.
The first element of the "CH" number will be highlighted.
If you have selected EXT in step 4, select the video input source with + or –. (See Fig. 9.)

Fig.9.

There are two ways to preset channels. If you know the channel number, go to step "6-Manual",

or

if you don't know the channel number, go to step "6- Search".

6 ***Manual***

-a Select the first element of the "CH" number with + / – or the number buttons and press OK.
The second element of the "CH" number will be highlighted.

-b Select the second element of the number with + / – or the number buttons.
The selected number appears. (See Fig. 10.)

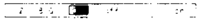


Fig.10.

-c Press OK
The "SEARCH" position is highlighted and the selected channel is now stored. (See Fig. 11.)

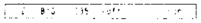


Fig.11.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 6 to preset other channels.

If you have made a mistake
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

6 ***Search***

-a Press OK repeatedly until the colour of the SEARCH position changes.

-b Start searching for the channel with + (up) or – (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

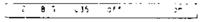


Fig.12.

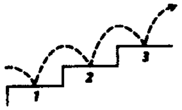
Fig.13.

-c Press OK if you want to store this channel. If not, press + or – to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 6 to preset other channels.

1-3. ADDITIONAL PRESETTING FUNCTIONS

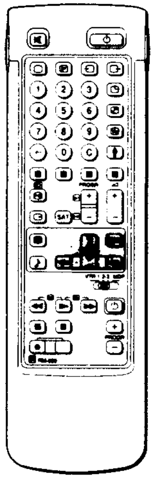


This section shows you additional presetting functions such as exchanging or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible
- Locate the Menu operation buttons.

[illegible]



For programme positions beyond 15
The display scrolls automatically.

If you have made a mistake
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

Exchanging Programme Positions

With this function, you can exchange the programme positions to a preferable order.

1 Press MENU to display the main menu.

2 Select `Preset` with + or – and press OK.
The `PRESET` menu appears.

3 Select `Programme Exchange` with + or – and press OK.
The `PROGRAMME EXCHANGE` menu appears. (See Fig. 14.)

4 Using + or –, select the programme position you want to exchange with another and press OK.
The colour of the selected position changes. (See Fig. 15.)

5 Using + or –, select the programme posititon to be exchanged and press OK. Now the two programme positions have been exchanged. (See Fig. 16.)

6 Repeat steps 4 and 5 to exchange other programme positions.

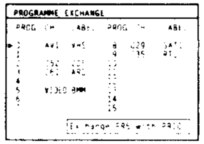


Fig. 14.

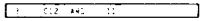


Fig. 15.

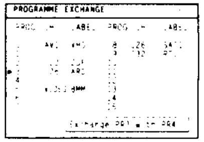


Fig. 16.

Tuning in a Channel Temporarily

Ⓒ

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

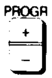
1 Press C on the Remote Commander.
The indication "C" appears on the screen.

2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.



1 Press MENU to display the main menu.

2 Select `Preset` with + or – and press OK.
The `PRESET` menu appears.

3 Select `Manual Programme Preset` with + or – and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig.18.)

4 Using + or –, select the programme position which you want to skip and press OK.
The "SYSTEM" position changes colour.

5 Press + or –until – – – appears in the SYSTEM position. (See Fig. 18.)

6 Press OK. (See Fig. 19)
When you select programmes using the PROGR +/- buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.

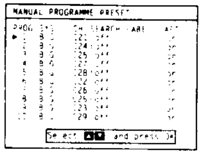


Fig. 17.

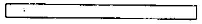


Fig. 18.

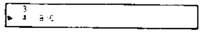


Fig. 19.

MANUAL PROGRAMME PRESET

Captioning a Station Name

You can "name" a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. ZDF). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select `Preset` with + or – and press OK.
The `PRESET` menu appears.

3 Select `Manual Programme Preset` with + or – and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 20.)

4 Using + or –, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with + or – and press OK.The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)

6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 22.)

7 Repeat steps 5 and 6 to caption names for other channels.

If you have made a mistake
Press ⇐ to go back to the previous position.

To go back to main menu
Keep pressing ⇐.

To go back to the normal TV picture
Press MENU.

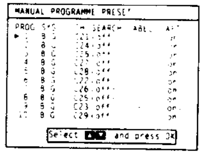


Fig. 20.

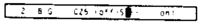


Fig. 21.

▶ 2 B/G C25 off SONY on

Fig. 22.

MANUAL PROGRAMME PRESET

Manual Fine-Tuning

Normally, the AFT(automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

1 Press MENU to display the main menu.

2 Select `Preset` with + or – and press OK.
The `PRESET` menu appears.

3 Select `Manual Programme Preset` with + or – and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 23.)

4 Using + or –, select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.

5 Fine-tune the channel with + or – so that you get the best TV reception. As you press the cursor buttons, the frequency changes from -15 to +15. (See Fig. 24.)

6 After fine tuning, press OK.
The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.

7 Repeat steps 4 to 6 to fine-tune other channels.

To reactivate AFT (automatic fine tuning)
Repeat from the beginning and select "ON" in step 5.

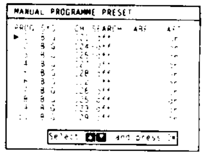


Fig. 23.

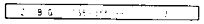


Fig. 24.

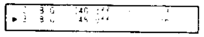


Fig. 25.

PARENTAL LOCK

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.

2 Select `Preset` with + or – and press OK.
The `PRESET` menu appears.

3 Select `Parental Lock` with + or – and press OK.
The `PARENTAL LOCK` menu appears. (See Fig. 26.)

4 Using + or –, select the programme position you want to block and press OK.
The selected PROG number, CH and LABEL change colour indicating that this programme is now blocked. (See Fig. 27.)

5 Repeat step 4 to block other programme positions.

Cancelling blocking

1 On the `PARENTAL LOCK` menu, select the programme position you want to unblock with + or –.

2 Press OK.
The selected PROG number, CH and LABEL change colour to normal colour indicating that the blocking has been cancelled.

If you try to select a programme that has been blocked
The message "Locked" appears on the blank TV screen.

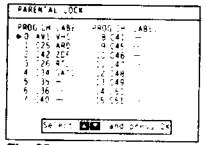


Fig. 26.

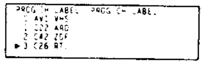
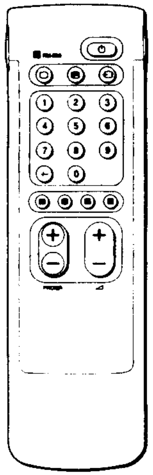


Fig. 27.

1-4. WATCHING THE TV



This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

Depress ⏻on the TV.

Switching off temporarily

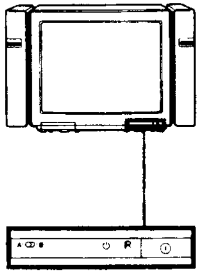
Press ⏻ on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again

Press ▢, PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress ⏻ on the TV.



If no picture appears when you depress ⏻ on the TV

and if the standby indicator on the TV is lit, the TV is in standby mode. Press ▢ or one of the number buttons to switch it on.

Selecting TV Programmes

Press PROGR +/– or press number buttons.

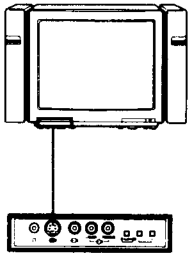
To select a double-digit number

Press -/—, then the numbers.
For example, if you want to choose 23, press -/—, 2, and 3.

Adjusting the Volume

Press ■/–

Operating the TV Using the Buttons on the TV



With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press P-⊿-⇥ button repeatedly until the programme number, ⊿ (for volume), or ⇥ (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET function.)

Watching Teletext or Video Input

For details of the teletext operation, refer to page 47.

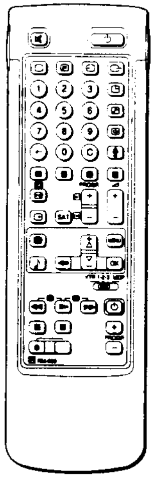
Watching teletext

- Press ⊜ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press ⊕ (PAGE +) or ⊖ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ▢.

For details of the video input picture, refer to page 51.

Watching a video input picture

Press ⇥ repeatedly until the desired video input appears. To go back to the normal TV picture, press ▢.



More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press ⊙ once to display all the indications. They will disappear after some seconds.
- Press ⊙ twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound.

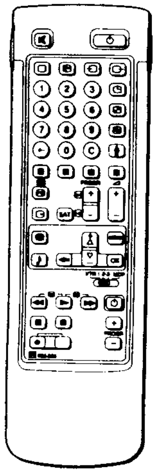
Press 🔇.
To resume normal sound, press 🔇 again.

Displaying the time

Press ◷. This function is available only when teletext is broadcast.
To make the time display disappear, press ◷ again.

1-5. ADJUSTING AND SETTING THE TV USING THE MENU

[redacted]



Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can change the aspect ratio of the TV display for wide screen effect, or set the resolution to obtain a higher quality picture. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones.

1 Press ● (for picture) or ♪ (for sound) on the Remote Commander.

or

Press MENU and select `Picture Control` or `Sound Control`, then press OK.
The `PICTURE CONTROL` or `SOUND CONTROL` menu appears. (See Fig. 28 or Fig. 29)

2 Using + or −, select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 30)

3 Adjust the setting with + or − and press OK.
The cursor appears beside the next item (at the left margin). (See Fig. 31)
For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.

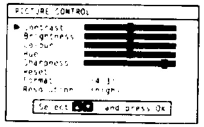


Fig. 28.

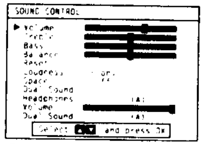


Fig. 29.

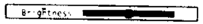


Fig. 30.

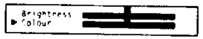


Fig. 31.

If you have made a mistake
Press ← to go back to the previous position.
To go back to the main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

Note
HUE is only available for NTSC colour system and RESOLUTION does not work for SECAM colour system.

Note on LINE OUT
The audio level and the dual sound mode output from the ⊖ jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

When watching video input picture
You can select DUAL SOUND to change the sound.

Effect of each control

PICTURE CONTROL	Effect
Contrast	Less —+— More
Brightness	Darker —+— Brighter
Colour	Less —+— More
Hue	Greenish —+— Reddish
Sharpness	Softer —+— Sharper
Reset	Resets picture to the factory preset levels.
Format	4 : 3 : Normal 16 : 9 : Wide screen effect
Resolution	Normal High : Obtain a higher quality picture

SOUND CONTROL	Effect
Volume	Less —+— More
Treble	Less —+— More
Bass	Less —+— More
Balance	More left —+— More right
Reset	Resets sound to the factory preset levels.
Loudness	off : Normal on : When listening to low volume sound.
Space	off : Normal on : Obtain acoustic sound effect.
Dual Sound	A : left channel B : right channel stereo mono The selected mode of the A-CD-B indicator on the TV lights up.
Headphones: Volume	Less —+— More
Dual Sound	A : left channel B : right channel stereo mono

PROGRAMME TABLE

To select a programme using this menu
Select the programme number with + or − and press OK.
The selected programme appears.

To go back to the normal TV picture
Press MENU.

Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

From the main menu, select `Programme Table` with + or − and press OK.
The `PROGRAMME TABLE` menu appears. (See Fig. 32)

To scroll to higher programme numbers, press −.

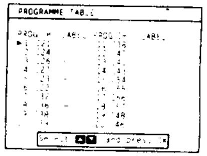


Fig. 32.

TIMER

To switch off the timer
Select "OFF" in step 3.

To check the remaining time
Press ⊙.

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select `Timer` with + or − and press OK.
The `Timer` menu appears. (See Fig. 33.)

2 Press OK.
The time period option changes colour.

3 Select the time period with + or −.
The time period (in minutes) changes as follows:
10 →20→30→40→50→60 →70→80 →90
↑———— OFF ————┘

4 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.

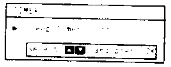
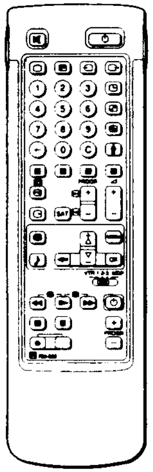


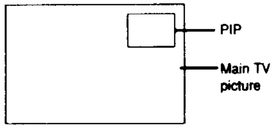
Fig. 33.

1-6. PIP (PICTURE IN PICTURE)



Note
RGB input source cannot be displayed in PIP.

With this function you can display a "PIP screen" (small picture) within the main TV picture. In this way you can watch or monitor the video output from any connected equipment (for example from a VTR) while watching TV or vice versa. For information about connection of other equipment, refer to page 50.



Switching PIP on and off

Press ◔ .
The PIP screen will be displayed. The PIP picture will come from the source chosen when the TV was last used.

To switch PIP off
Press ◔ again.

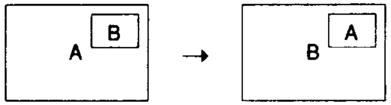
Selecting a PIP source

Press ⬆.
The symbol ⬆ will be displayed at the bottom, left-hand corner of the screen.
Press ⇥ repeatedly until the desired PIP source is indicated (e.g. TV, AV1, AV2, YC2, AV3, YC3, AV4, YC4).

Note
If no video source has been connected, the PIP picture will be noisy.

Swapping screens

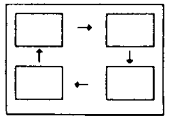
Press ◕.
The main screen will switch the picture with the PIP screen.



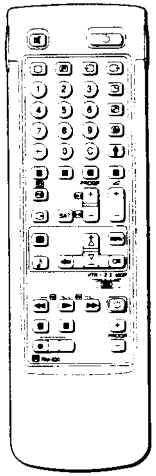
Note
If a TV programme is on the PIP screen and a video source on the main picture, and you want to change channels, first press ⬆ and then the programme buttons or PROGR +/–.

Changing the position of the PIP

Press ⊛ repeatedly to change the position of the PIP screen within the main screen. There are four different positions available.



1-7. TELETEXT



Note
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander
You can switch teletext on and off, operate Fastext, and directly select page numbers.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).If there is no teletext broadcast, P100 is displayed on the information line at the top of the screen.

To switch teletext off
Press ▢.

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

With page-catching

1 Select a teletext page with a page overview (e.g. index page).

2 Press ⊕ twice. "Page catching " will be displayed on the information line. The last digit of the first displayed page number flashes.

3 Using + or –, select the desired page and press OK.
The requested page will appear in a few seconds.

Accessing next or preceding page

Press ⊞ (PAGE +) or ⊟ (PAGE –).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

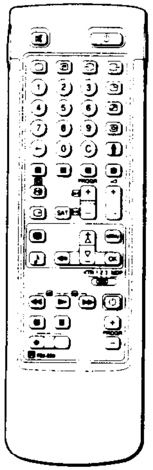
Preventing a teletext page from being updated

- Press ⊕ (HOLD). The HOLD symbol "⊕" displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Using Fastext

Note
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

With Fastext you can access pages with one key stroke.When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.



Note
Some of the features may not be available depending on the Teletext service.

Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 34)

2 Using + or –, select the teletext function you want and press OK. (See Fig. 35)

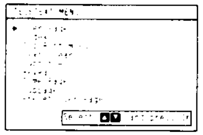


Fig. 34.

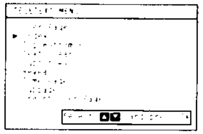


Fig. 35.

USER PAGES/PRESET USER PAGES

See page 49 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display. After having selected the function, an information line `Top/Bottom/Full` will be displayed. (See Fig. 36)

Press + for Top to enlarge the uper half, – for Bottom to enlarge the lower one and OK for Full to resume the normal size.

Press ⊜ to resume normal teletext reception.

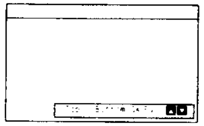


Fig. 36.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a teletext page to be displayed. (See Fig. 37)

Press ⊜ to resume normal teletext reception.

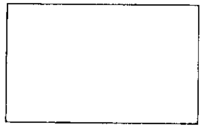


Fig. 37.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line "REVEAL ON/OFF" will be displayed. (See Fig. 38)

Using + or –, select ON to reveal the information or OFF to conceal it again.

Press ⊜ to resume normal teletext reception.

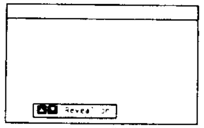


Fig. 38.

TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g. an alarm page) displayed at a certain time.

1 Press OK to select ON for the `Time Page` setting.The TV programme you were watching before you selected `Time Page` is restored. An information window will be displayed at

To cancel the request
Press OK to select "OFF" for the TIME PAGE setting.

To cancel the request
Select "OFF" for the SUBPAGE setting and press OK.

If two broadcasting stations use the same Teletext
You can preset one bank to 2 different programme positions.

3 To select the desired time, enter four digits for the desired time (e.g. 1800) using the number buttons and press OK.The selected time is displayed at the top in the left-handed corner. At the requested time, the page will be displayed.

Press ⊜ to resume normal teletext mode.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. If you want to select one subpage, follow the operations below:

1 Using + or –, select ON for the SUBPAGE setting and press OK.

2 To select the desired subpage, enter four digits using PROG +/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

User Page Bank System

You can store up to 30 pages in the "Teletext page bank system". In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 "banks" (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

1 Press ⊜ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.

2 Select `Preset User` Pages with + or – and press OK.

3 Select the desired bank with + or – and press OK. The cursor will go to the first position (P1) of the preferred pages.

4 Input the three digits of your first preferred page with the number buttons and press OK.
The cursor will go to the second position.

5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.

6 Select `Allocate Bank` with + or – and press OK.

7 Select the programme position for which you want to preset pages with + or – and press OK. (See Fig. 39)

8 Select the desired bank with + or – (Banks A to E are available) and press OK.

9 Repeat steps 3 to 8 for the other 4 banks available.

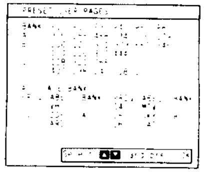


Fig. 39.

Displaying User Pages

1 Select MENU.

2 Select `User Pages` with + or – and press OK.
A table of the stored preferred pages will be displayed. (See Fig. 40)

3 Select the desired page with + or – and press OK. The page will be displayed after some seconds.

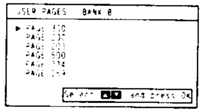


Fig. 40.

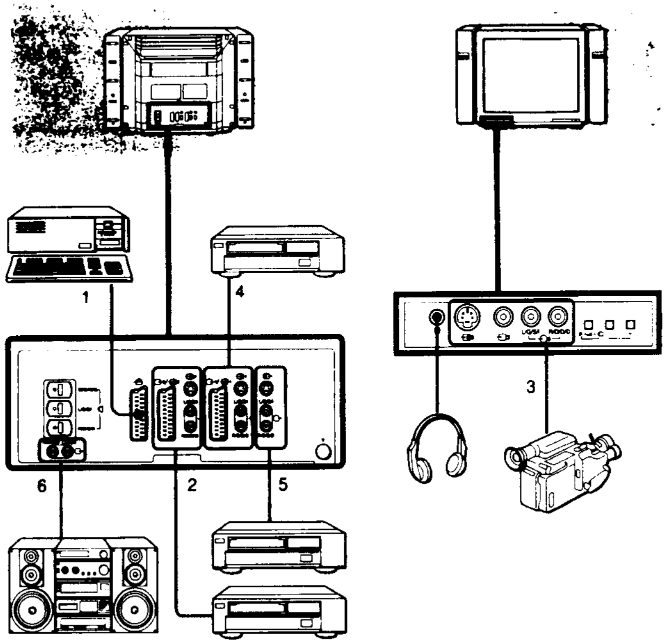
1-8. CONNECTING AND OPERATING OPTIONAL EQUIPMENT

Connecting Optional Equipment

You can connect optional audio-video equipment to this TV such as VTRs, video disc players, and stereo systems.

To connect a VTR using the ⊤ terminal
Connect the aerial output of the VTR to the aerial terminal ⊤ of the TV.
We recommend that you tune in the video signal to programme number "0". For details see "Preset channels manually" on page 37.

If the picture or the sound is distorted
Move the VTR away from the TV.

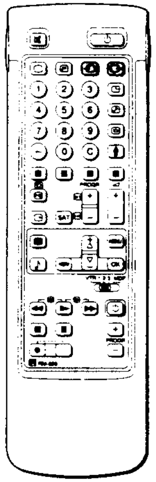


S-video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance). This TV is equipped with 3 S-Video input jacks through which these separated signals can be input directly.

When connecting a monaural VTR
Connect only the white -⊙ jack to both the TV and VTR.

Acceptable input signal	Available output signal
1 Normal audio/video and RGB signal	Video/audio from TV tuner
2 Normal audio/video and S video signal	Video/audio from selected source
3 Normal audio/video and S video signal	No outputs
4 Normal audio/video and S video signal	Video/audio displayed on TV screen (monitor out)
5 No inputs	S video/audio signal displayed on TV screen (monitor out)
6 No inputs	Audio signal (variable)

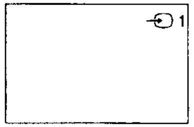
Selecting input with PROGR +/– or number buttons
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons.
For details, see "Preset channels manually" on page 37.



Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

Selecting input



Press -⊙ repeatedly to select the input source.

The symbol of the selected input source will appear.

To go back to the normal TV picture

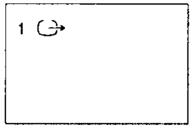
Press ○.

Input modes

Symbol	Input signal
-⊙ 1	Audio/video input through the -⊙ 1 connector
-⊙	RGB input through the -⊙ 1 connector
-⊙ 2	Audio/video input through the ⊙→2/-Ⓢ2 connector
-Ⓢ 2	S video input through the ⊙→2/-Ⓢ2 or -Ⓢ2 connector
-⊙ 3	Audio/video input through -⊙3 and -⊙3 on the front
-Ⓢ 3	S video input through the -Ⓢ3 connectors on the front (4-pin connector)
-⊙ 4	Audio/video input through the ⊙→4/-Ⓢ4 connector
-Ⓢ 4	S video input through the ⊙→4/-Ⓢ4 or -Ⓢ4 connector (4-pin connector)

You can also select the input mode using the P→⊿→-⊙ and –/+ buttons on the TV. In this case, first select -⊙, and then press –/+ buttons to select the input.

Selecting the output



The ⊙→2/-Ⓢ2 connector outputs the source input from the other connectors.

Press ⊙→ repeatedly to select the output.
The symbol of the selected output source appears.

Output modes

Symbol	⊙→2/-Ⓢ2 connector outputs
1 ⊙→	The audio/video signal from the -⊙ 1 connector
2 ⊙→	The audio/video signal from the ⊙→2/-Ⓢ2 connector
2 Ⓢ→	The audio/S video signal from the ⊙→2/-Ⓢ connector
3 ⊙→	The audio/video signal from the -⊙3, -⊙3 connectors
3 Ⓢ→	The audio/S video signal from the -Ⓢ3, -⊙3 connectors
4 ⊙→	The audio/video signal from the ⊙→4/-Ⓢ4 connector
4 Ⓢ→	The audio/S video signal from the ⊙→4/-Ⓢ4 connector
TV⊙→	The audio/video signal from the ⊤ aerial terminal

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen and PIP screen, and which output source is selected. You can also select them on the menu display.

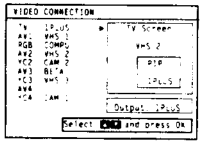
1 Select `Video Connection` with + or – and press OK. The `VIDEO CONNECTION` menu appears. (See Fig. 41)
You can see which source is selected for the TV and PIP input, and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV Screen (input source for the TV screen), PIP(input source for the PIP screen), or output (output source) with + or – and press OK. One of the source items changes colour. (See Fig. 42)

3 Select the desired source with + or –. (See Fig. 43)
For details about each source, see the table on page 23.

4 Press OK.
The selected source is confirmed, and the cursor appears. (See Fig. 44)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.



```
VIDEO CONNECTION
TV   1PLUS        ▶ TV Screen
AV1  VHS 1          VHS 2
RGB  COMPU          PIP
AV2  VHS 2          1PLUS
YC2  CAM 2
AV3  BETA
YC3  VHS 3
AV4
YC4  CAM 1          Output 1PLUS
           Select ▲▼ and press OK
```

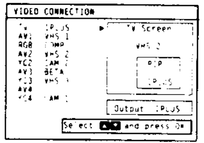
Fig. 41.

```
TV   1PLUS          TV Screen
AV1  VHS 1
```

Fig. 42.

```
AV2  VHS 2
YC2  CAM 2          PIP
AV3  BETA           1PLUS
```

Fig. 43.



```
VIDEO CONNECTION
TV   1PLUS        ▶ TV Screen
AV1  VHS 1          VHS 2
RGB  COMP           PIP
AV2  VHS 2          1PLUS
YC2  CAM 2
AV3  BETA
YC3  VHS 3
AV4
YC4  CAM 1          Output 1PLUS
           Select ▲▼ and press OK
```

Fig. 44.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most of Sony remote-controlled video equipment such as: Beta, 8mm or VHS VTRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR

VTR 2: 8mm VTR

VTR 3: VHS VTR

MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

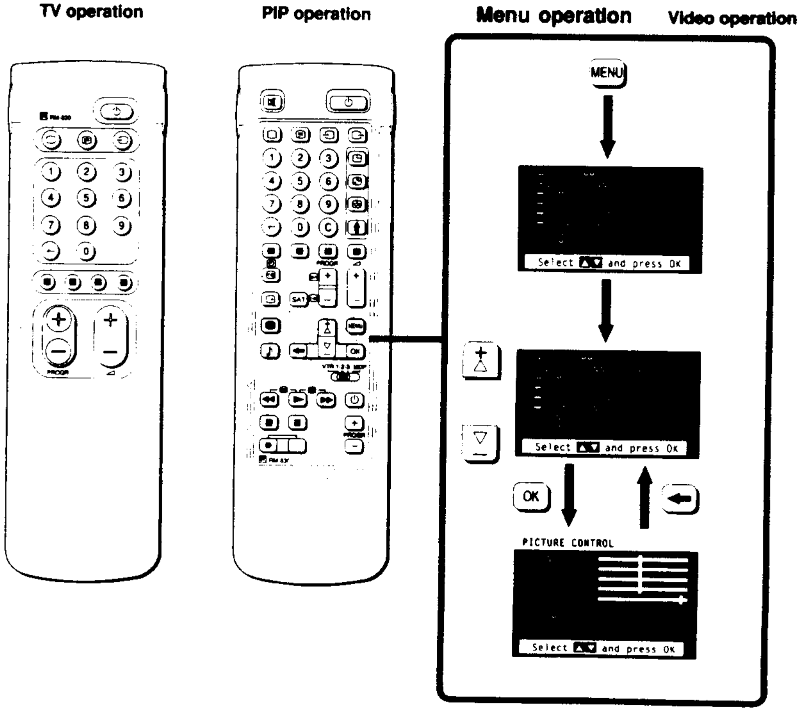
1-9. FOR YOUR INFORMATION

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

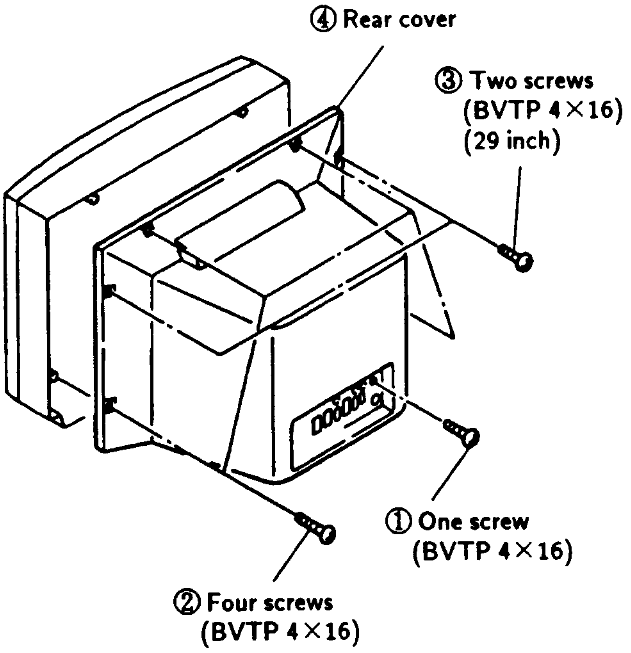
Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in. • Press ① on the TV. (If ○ indicator is on, press ○ or a programme number on the Remote Commander.) • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using ①.
Poor or no picture (screen is dark), but good sound	• Press ● to enter the `PICTURE CONTROL` menu and adjust `BRIGHTNESS`, `CONTRAST` and `COLOUR`.
Good picture but no sound	• Press ◁ +. • Check loudspeakers connection. • If ◁✕ is displayed on the screen, press ◁✕.
No colour for colour programmes	• Press ● to enter the `PICTURE CONTROL` menu, select `RESET`, then press `OK`.
Remote Commander does not function.	• Replace batteries.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

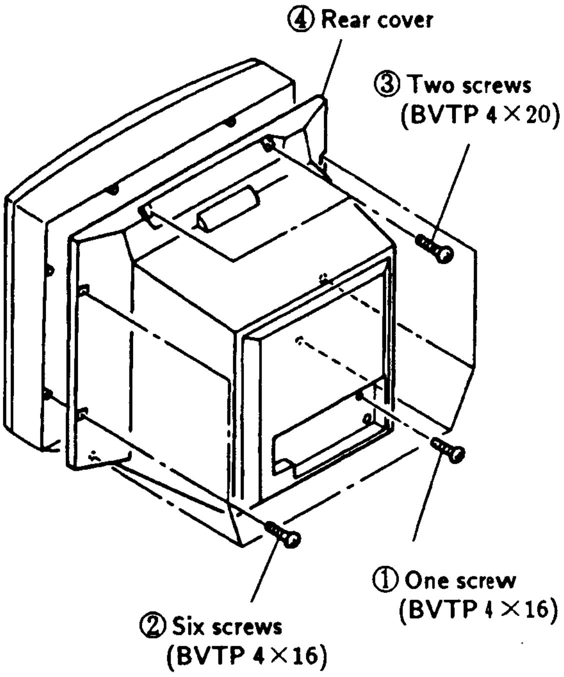


SECTION 2
DISASSEMBLY

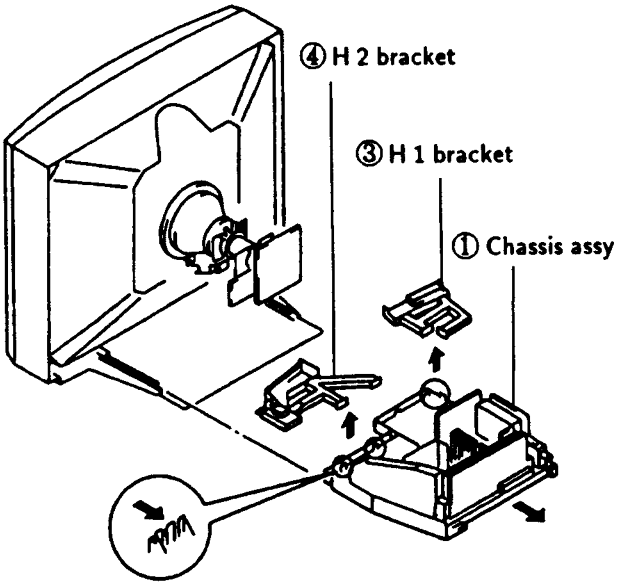
2-1-1. REAR COVER REMOVAL (25 inch, 29 inch)


④ Rear cover
③ Two screws
(BVTP 4×16)
(29 inch)
① One screw
(BVTP 4×16)
② Four screws
(BVTP 4×16)

2-1-2. REAR COVER REMOVAL (34 inch)

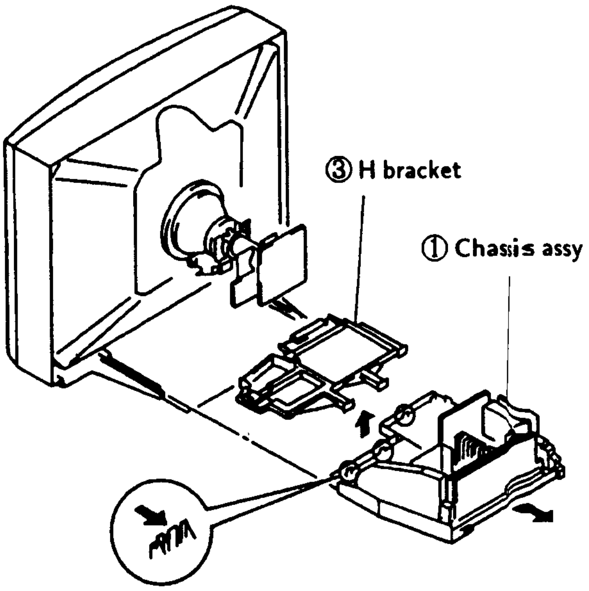

④ Rear cover
③ Two screws
(BVTP 4×20)
① One screw
(BVTP 4×16)
② Six screws
(BVTP 4×16)

2-2-1. CHASSIS ASSY REMOVAL (25 inch, 29 inch)


④ H 2 bracket
③ H 1 bracket
① Chassis assy

② Push the four claws of the main chassis in the direction of the arrow and remove the H 1 and H 2 bracket upwards.

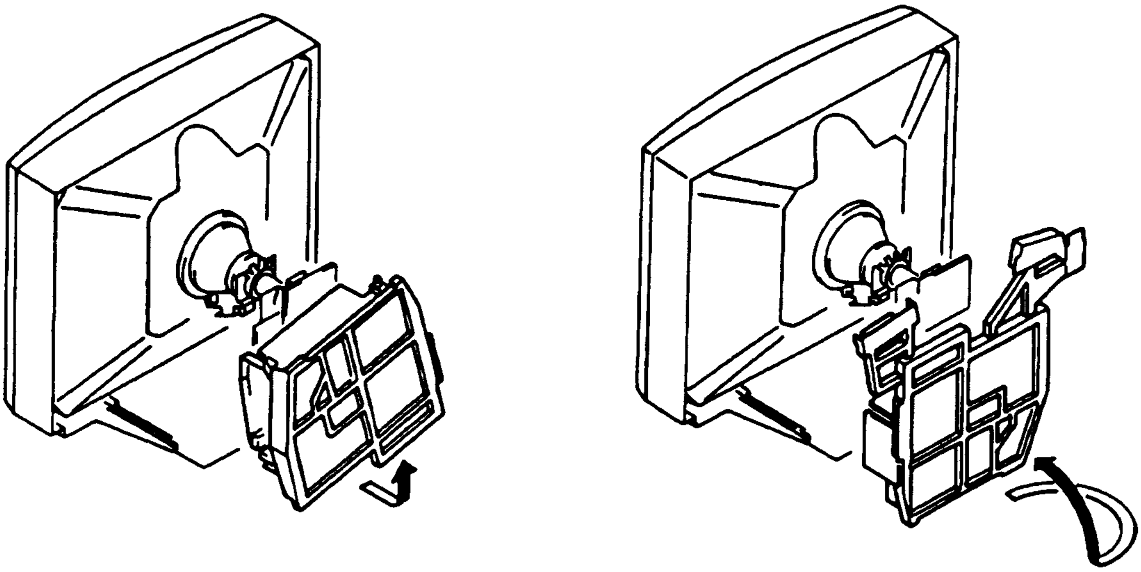
2-2-2. CHASSIS ASSY REMOVAL (34 inch)


③ H bracket
① Chassis assy

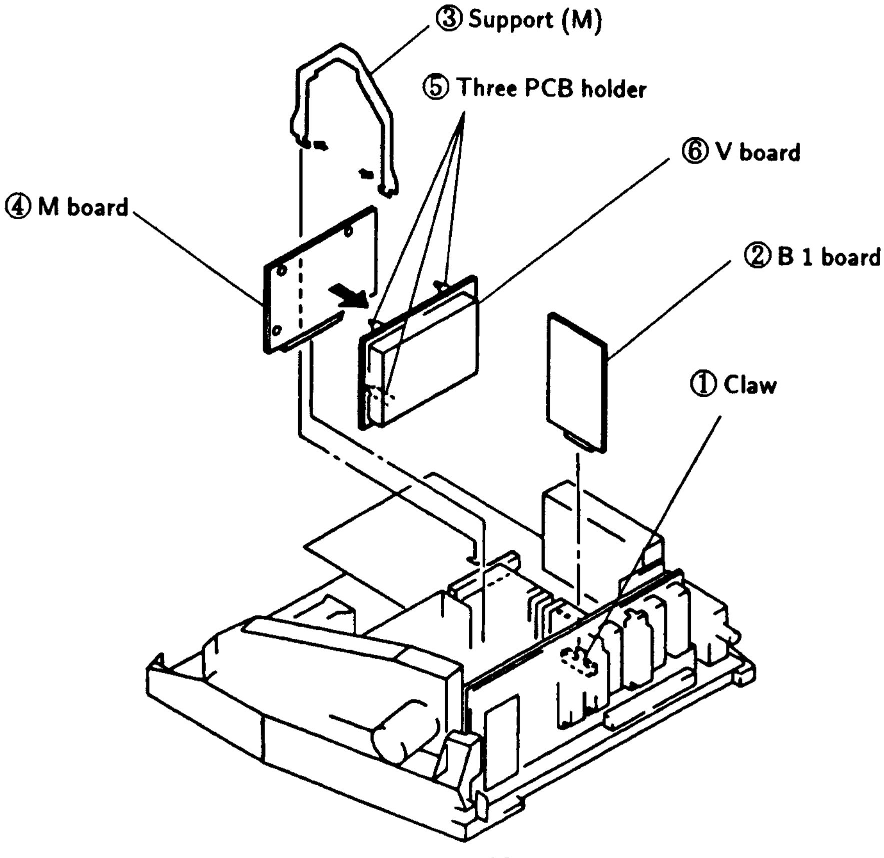
② Push the three claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

2-3. SERVICE POSITION

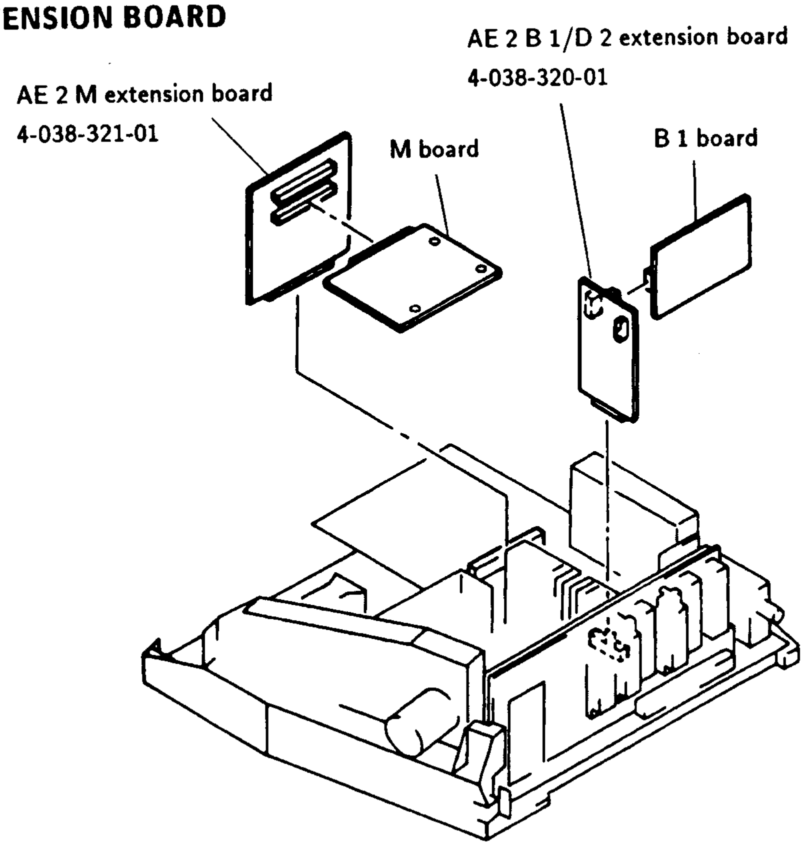
※ Remove the H bracket from the main chassis assy and then perform the following servicing.
(Refer to 2-2. CHASSIS ASSY REMOVAL)



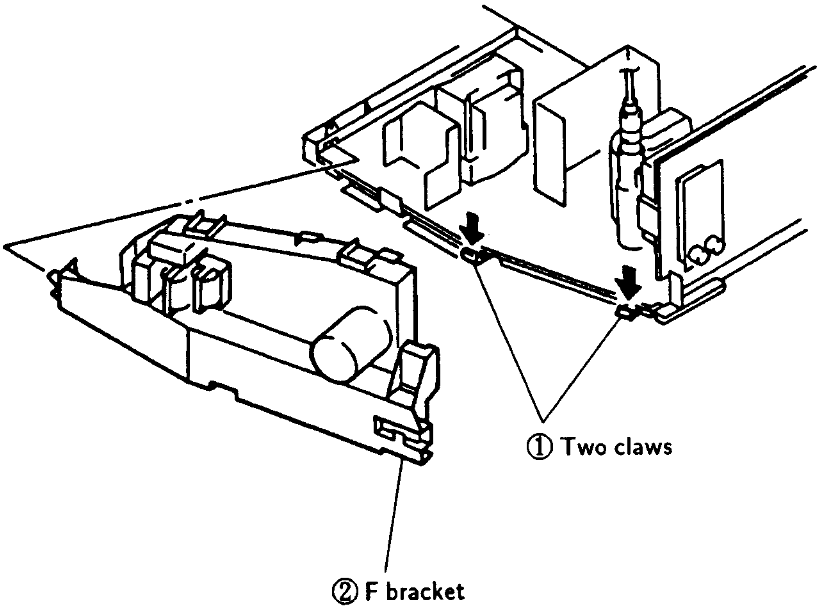
2-4. B 1, M AND V BOARDS REMOVAL


③ Support (M)
⑤ Three PCB holder
⑥ V board
④ M board
② B 1 board
① Claw

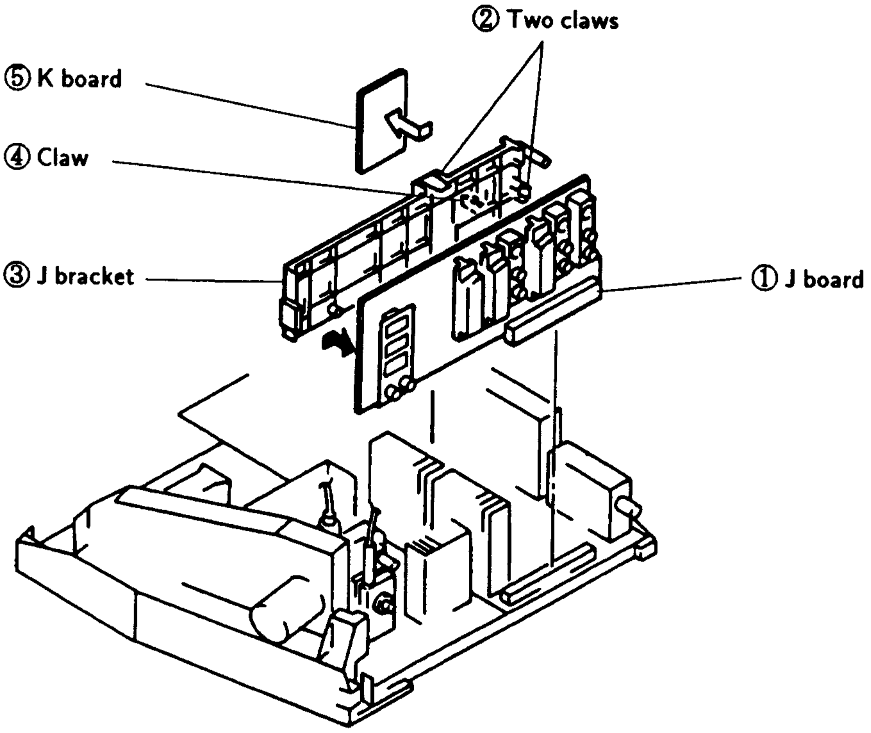
2-5. EXTENSION BOARD


AE 2 B 1/D 2 extension board
4-038-320-01
AE 2 M extension board
4-038-321-01
M board
B 1 board

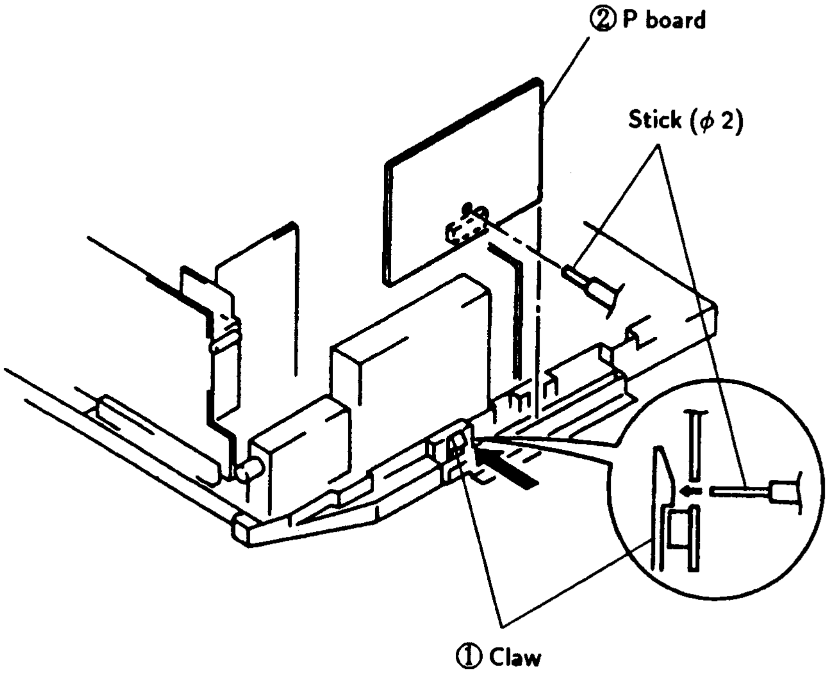
2-6. F BRACKET REMOVAL


① Two claws
② F bracket

2-7. J AND K BOARDS REMOVAL

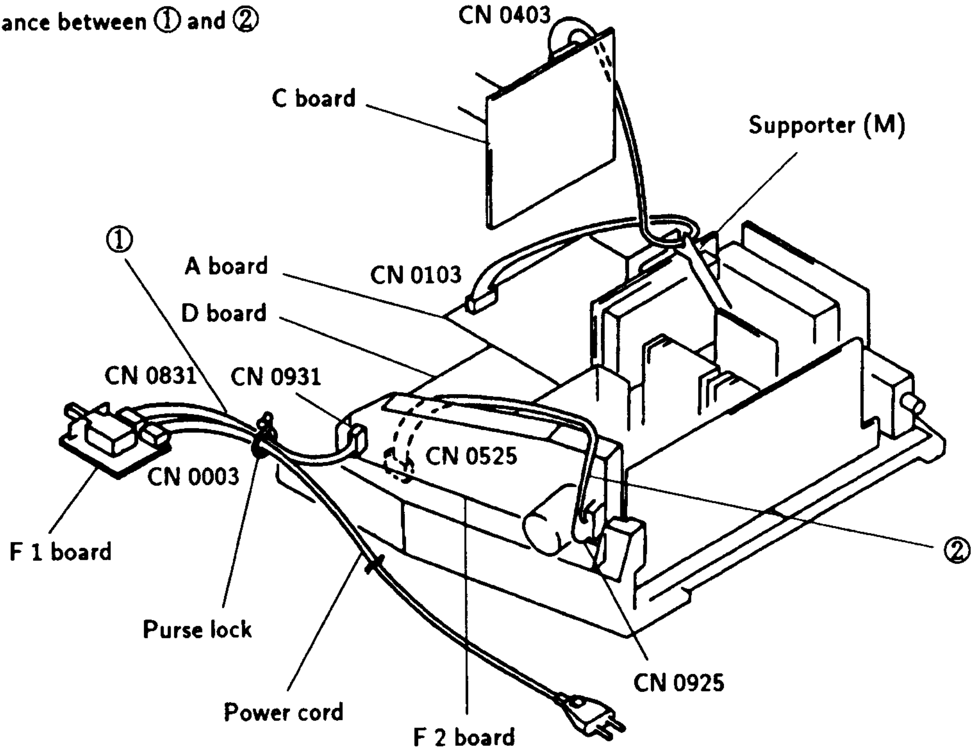

② Two claws
⑤ K board
④ Claw
③ J bracket
① J board

2-8. P BOARD REMOVAL

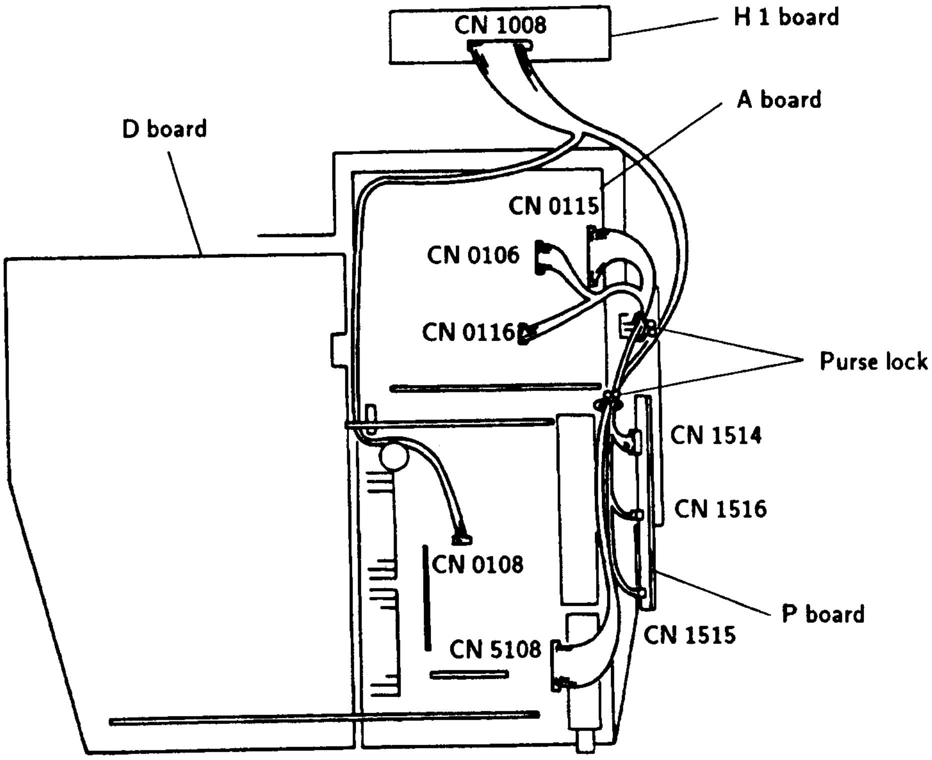

② P board
Stick (ϕ 2)
① Claw

2-9-1. WIRE ROD

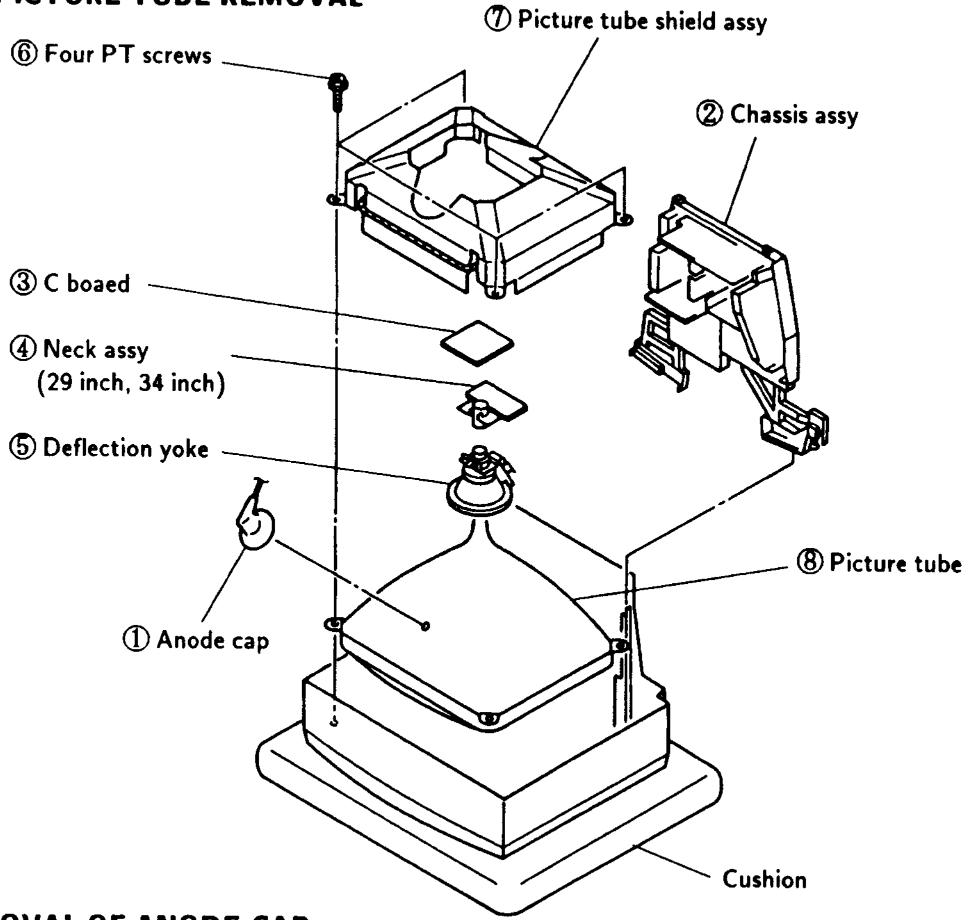
※ Keep distance between ① and ②


CN 0403
C board
Supporter (M)
①
A board
CN 0103
D board
CN 0831
CN 0931
CN 0525
CN 0003
F 1 board
②
Purse lock
CN 0925
Power cord
F 2 board

2-9-2. WIRE ROD


CN 1008
H 1 board
A board
D board
CN 0115
CN 0106
CN 0116
Purse lock
CN 1514
CN 1516
CN 0108
P board
CN 5108
CN 1515

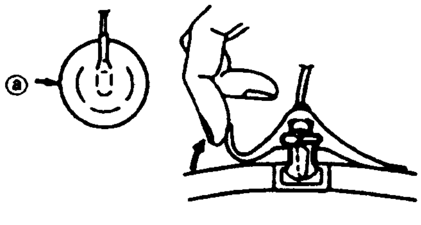
2-10. PICTURE TUBE REMOVAL


⑦ Picture tube shield assy
⑥ Four PT screws
② Chassis assy
③ C boaed
④ Neck assy
(29 inch, 34 inch)
⑤ Deflection yoke
⑧ Picture tube
① Anode cap
Cushion

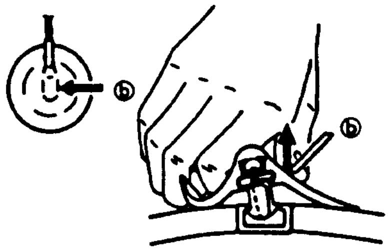
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

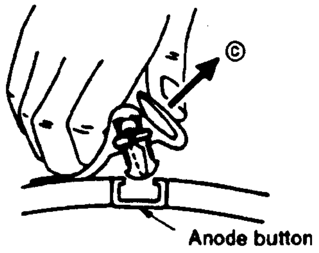
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.


ⓒ
Anode button

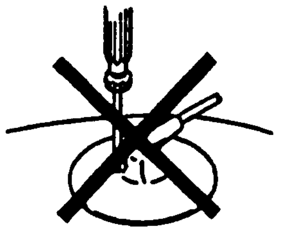
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

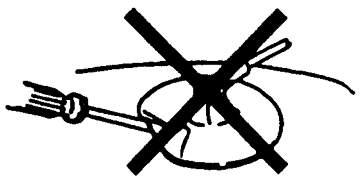
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3

SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :

◑ Contrast	80% (or remote control normal)
☼ Brightness	50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig.3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig.3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig.3-4)

Fig.3-2

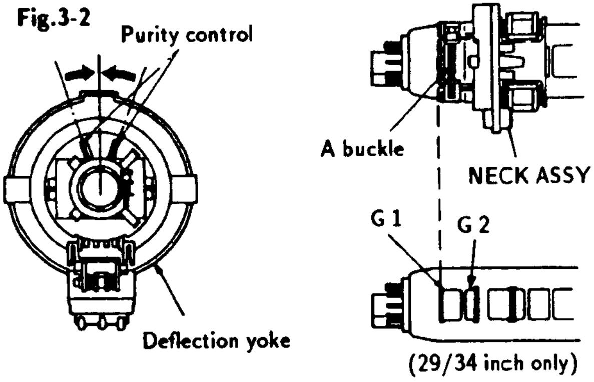
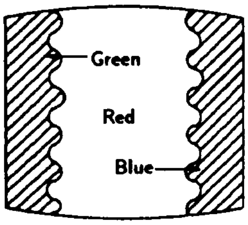

Purity control
A buckle
NECK ASSY
G1
G2
Deflection yoke
(29/34 inch only)

Fig.3-3


Green
Red
Blue

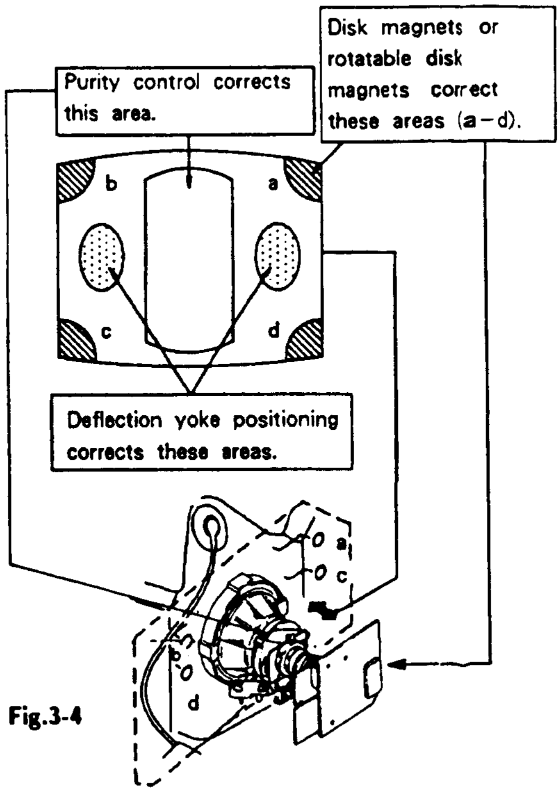

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a–d).
b
a
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d

Fig.3-4

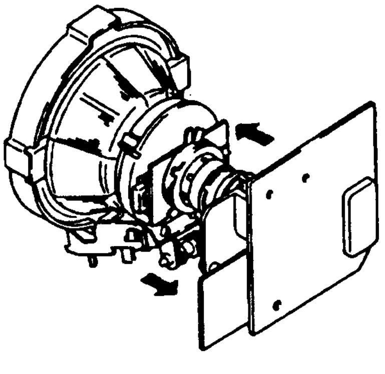


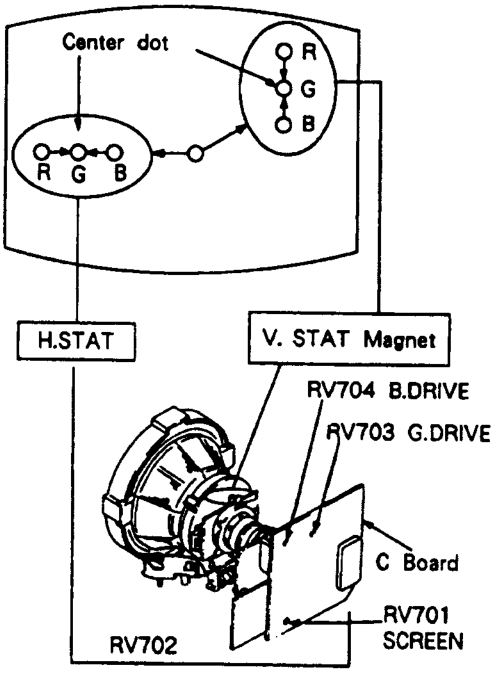
Fig.3-1

3-2. CONVERGENCE

Preparations :

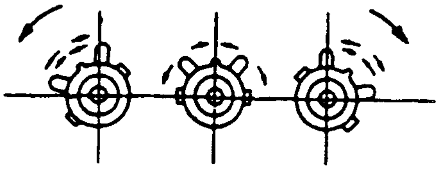
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence



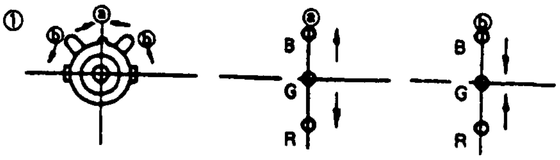
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below. (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

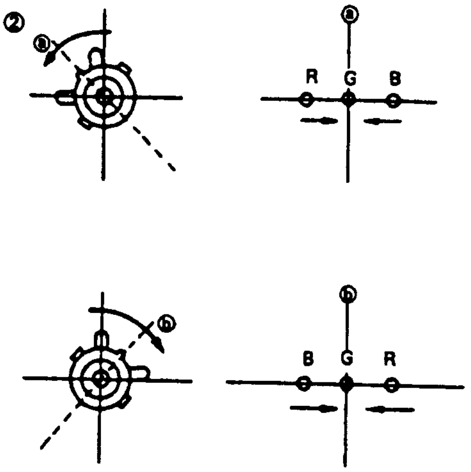


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

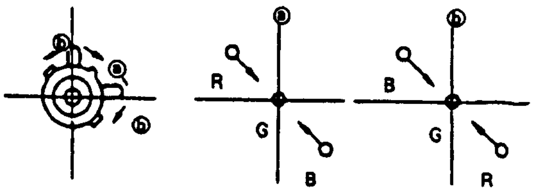
①



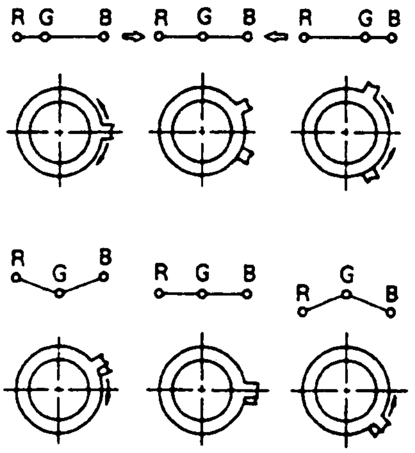
②



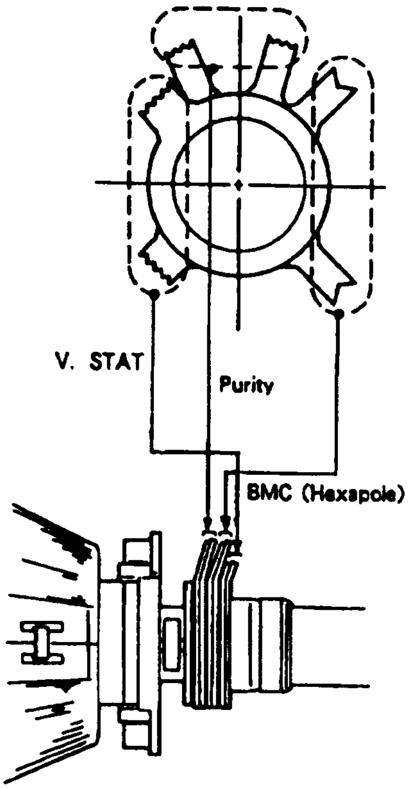
③



- Operation of BMC (Hexapole) Magnet


R G B
R G B
R G B
R G B
R G B
R G B

- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

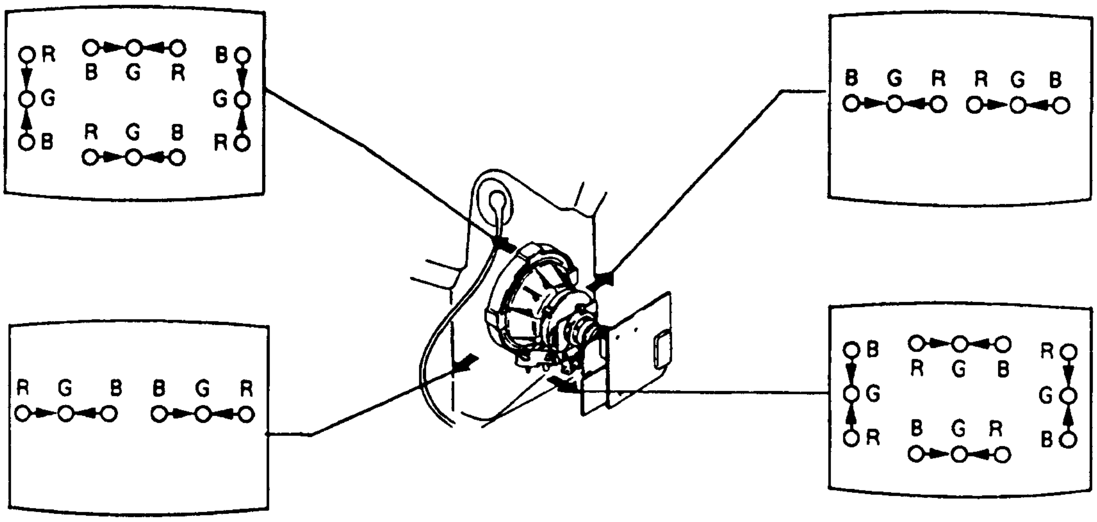

V. STAT
Purity
BMC (Hexapole)

(2)Dynamic convergence adjustment

Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.


R G B B G R
R G B R G B
B G R R G B
R G B R G B
B G R R G B
R G B B G R
B G R B G R
R G B R G B

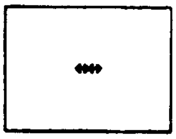
(3)Dynamic convergence adjustment
(34 inch only)

1. Adjust horizontal convergence located at the center position of the screen with H STAT VR.
2. Enter into service mode. (Refer to the section 2 "Electrical Adjustment" on how to enter service mode.)
3. Select CXA 1526 on menu.
4. Select each item and adjust them so that each item attains optimal convergence.
5. Press [OK] button to write the data.

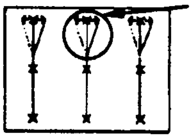
CXA 1526

1	DC SHIFT	(32)
2	UPPER Y BOW	(4)
3	LOWER Y BOW	(5)
4	H AMP	(48)
5	H TILT	(29)
6	UPPER COR BOW	(32)
7	UPPER TILT	
8	LOWER COR BOW	(32)
9	LOWER TILT	(32)

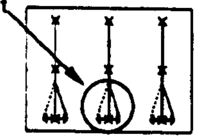
R.G.B.dots movement on the screen of the set



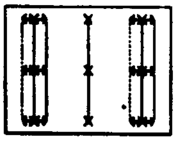
DC SHIFT
Fine adjustment of H STAT



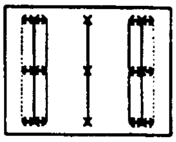
UPPER Y BOW
Adjustment of Y BOW of the upper section of the screen.



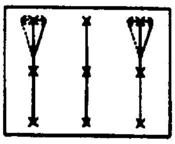
LOWER Y BOW
Adjustment of Y BOW of the lower section of the screen.



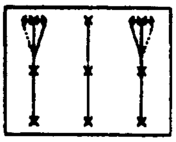
H AMP
H AMP adjustment



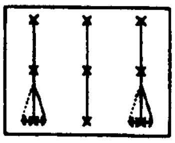
H TILT
H TILT adjustment



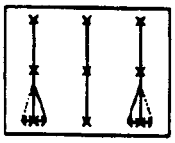
UPPER COR BOW
Adjustment of C BOW of the ower section of the screen.



UPPER TILT
Adjustment of TILT of the lower section of the screen.



LOWER COR BOW
Adjustment of C BOW of the lower section of the screen.

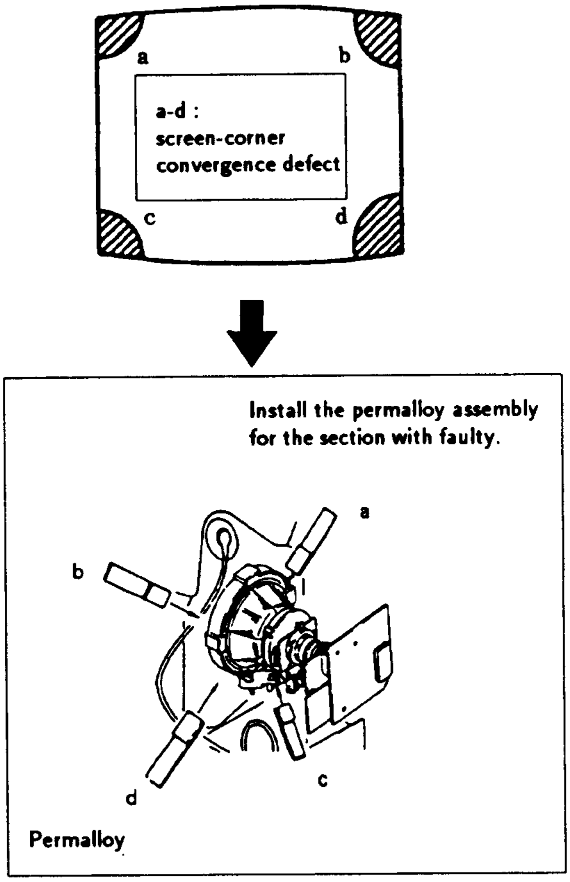


LOWER TILT
Adjustment of TILT of the lower section of the screen.

At this time, H.TILT, H.AMP, UPPER TILT, UPPER COR, BOW, LOWER TILT, and LOWER COR, BOW look like all the same, but the movement of the right and left dots are reverse in all the TILT system. (Pay attention to the dotted lines.)

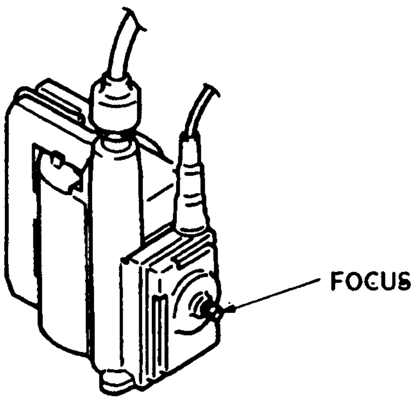
(4) Screen corner convergence

If you cannot adjust corner convergence properly, correct them with permalloy.


a
b
c
d
a-d : screen-corner convergence defect
Install the permalloy assembly for the section with faulty.
a
b
c
d
Permalloy

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select CXA 1587 on menu.

09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with ▲, ▼ buttons so that the white balance becomes optimum.
6. Press OK button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R-MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with ▲, ▼ buttons so that the white balance becomes optimum.
9. Press OK button to write the data for each item.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-830 (for 25/29 inch) or RM-830 (for 34 inch)

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

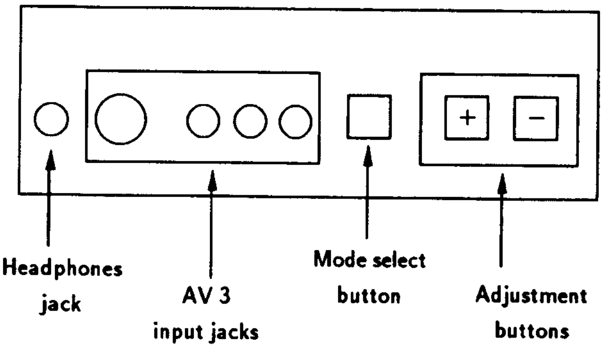


Fig.4-1

2. "TT" will appear on the upper right corner of the screen.

Command operation in service mode

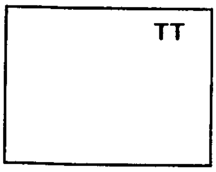


Fig.4-2

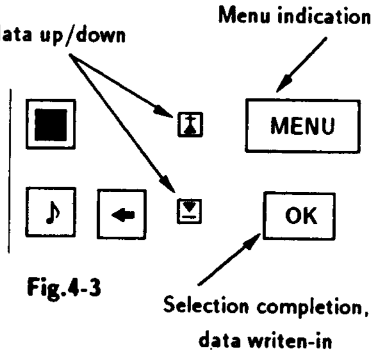

Item selection, data up/down
Menu indication
MENU
OK
Selection completion, data writen-in

Fig.4-3

3. Press the [MENU] button of the commander to get the menu on screen.

MAIN MENU
Programme Table
Video Connection
Picture Control
Sound Control
Timer
Preset
Language
> DEMO
Select < > and press OK

Fig.4-4

4. Press the ▲ and ▼ buttons of the commander and move > to DEMO.
5. Press [OK] button to proceed to the next menu.
6. The menu of fig.4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.

DEVICE
Initialize
> CXA 1587
CXD 2018
TDA 9145
TDA 1526
TDA 6612
CXA 7948 A
P/P service
Select < > and press OK

Fig.4-5

7. If adjustment item is CXA 1587, press the ▼ button and move > to CXA 1587.

CXA 1587 S

Item No.	Adjustment item	Data Amout
01	PICTURE	3
02	COLOR	1
03	BRIGHT	1
04	HUE	1
05	SHARPNESS	7
06	RGB PICTURE	3
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
> 09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.

8. Press [OK] button to get the next selection menu.
9. Press ▼ button and move > to the adjustment item and press [OK] button.
10. Press the ▲ and ▼ buttons to change the data in order to comply each standard.
11. Press [OK] button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

CXA 1587 S

01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	13
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	0
22	DC TRANSFER RATIO	3
23	DINAMIC PICTURE	0
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	ALL BLK	OFF
30	H SHIFT	32
31	DAC TEST	ON
32	PRE/OVER SHOOT	7
33	SHARPNESS FO	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1	OFF
39	AGING 2	OFF
40	AKB OFF	ON
41	INHIBIT RGB	OFF
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE SW	OFF
46	V EXTENTION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC OFF	ON
50	REF.POSITION	0

CXD 2018 Q

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

Typical Value (OSD based)when receiving PAL Philips pattern.

CXA 1526		ADJ.
1	DC SHIFT	(32)
2	UPPER Y BOW	(4)
3	LOWER Y BOW	(5)
4	H.AMP	(48)
5	H TILT	(29)
6	UPPER COR BOW	(32)
7	UPPER TILT	(32)
8	LOWER COR BOW	(32)
9	LOWER TILT	(32)

34 inch only

TDA 6612	ADJ.
Stereo-Separation	(30)

Should be adjusted twice 4 : 3 and 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input PAL RED pattern.
2. Connect an oscilloscope to CN 0403 ① pin (R OUT) on the C board.
3. Enter into service mode and press 3, 8.
4. Adjust data by △ or ▽ to minimize the chroma element of CN 0403 ① pin.

SUB BRIGHTNESS ADJUSTMENT

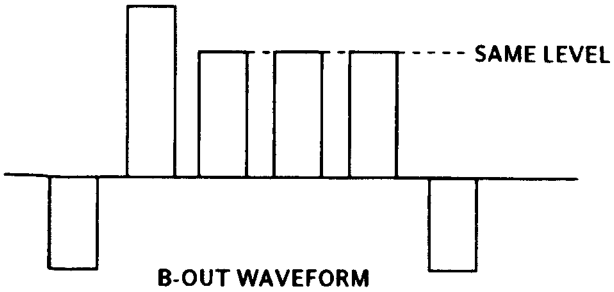
1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT -OFF 20-IRE glitter slightly.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains small 100% area on the Black Back ground.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Adjust data so that 2.5 Vp-p can be obtained at ① CN 0403 (R out).

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN 0403 ③ pin (B OUT) on the C board.
3. Enter into service mode and press 22 of CXA 1587, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.



B-OUT WAVEFORM

STEREO-SEPARATION ADJUSTMENT

1. Input 1 kHz stereo signal to the L-ch and 400 Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

DRIVE AND CUT OFF

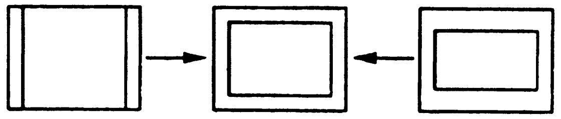
See direct test mode list attached and refer to sub brightness or such for adjustment method.

DEFLECTION SYSTEM ADJUSTMENT

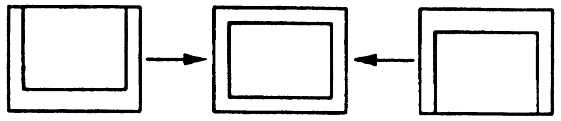
1. Enter into service mode and select CXD 2018.
2. Select and adjust each item in order to get an optimum image.

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

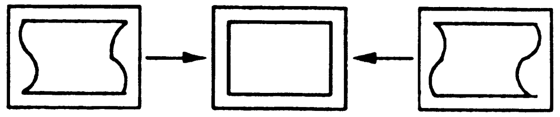
V SIZE



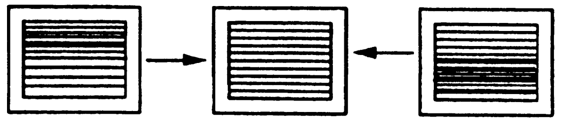
V SHIFT



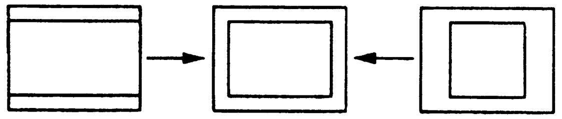
S CORRECTION



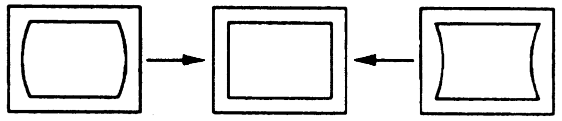
V LINEARITY



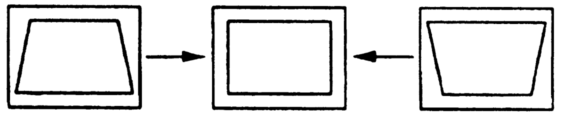
H SIZE



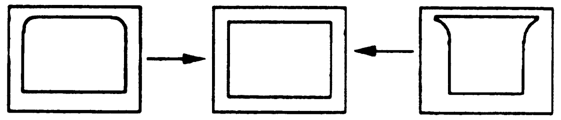
PIN AMP



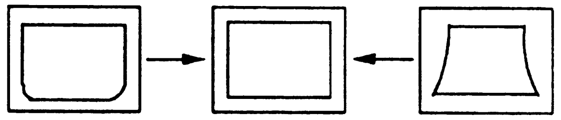
TILT



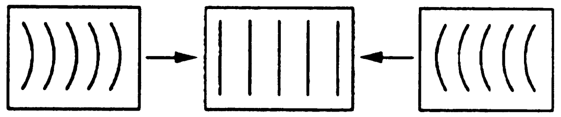
UPPER CORNER PIN



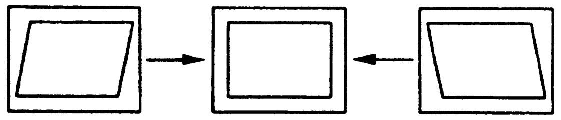
LOWER CORNER PIN



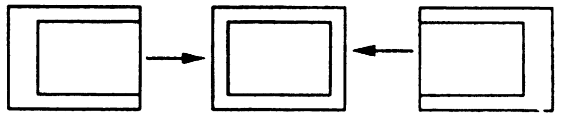
V BOW



ANGLE



H SHIFT



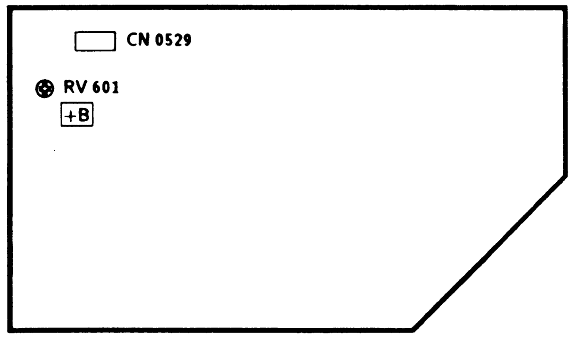
3. Press OK button to write the data.

If menu display may disturb the adjustment press ⊠ to clear, to resume it, press ⊠ again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

+B (+135 V) ADJUSTMENT (RV 601)

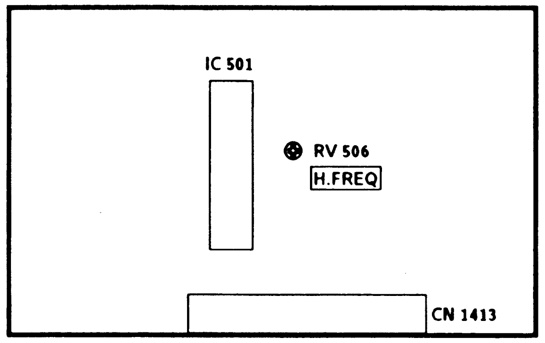
D BOARD



1. Turn on the power of the TV set.
2. Connect a digital multi-meter to ① pin of CN 0529 on D board.
3. Adjust RV 601 on D board to +135 V.

H.FREQ ADJUSTMENT (RV 506)

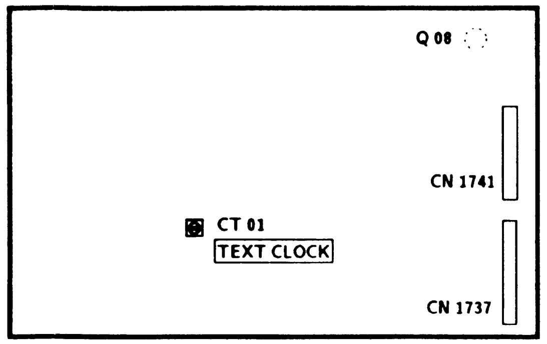
M BOARD



1. Connect GND to ⑫ pin of IC 501 on M board.
2. Connect a frequency counter to ④ pin of IC 501.
3. Adjust RV 506 on M board to 15,625+100 Hz.
4. Remove ⑫ pin of IC 501 from GND.

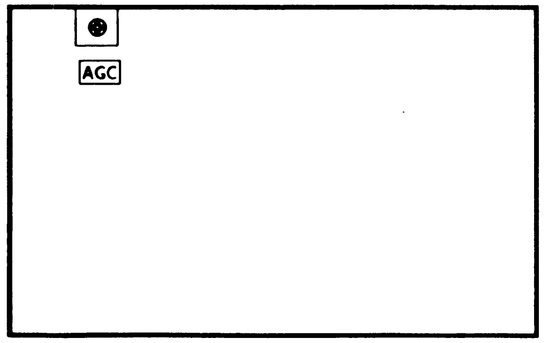
TEXT CLOCK ADJUSTMENT (CT 01)

V BOARD



1. Get TEXT MENU on screen.
2. Connect GND and the base of Q 08 on V board.
3. Adjust CT 01 on V board so that the MENU stands still as much as possible.

AGC ADJUSTMENT (IF BLOCK)



1. Receive off-air signal.
2. Adjust AGC VR so that there is no snow noise and cross-modulation.
3. Change receiving channel and confirm status.

4-3. T

Is avai
by pre

00
01
02
03
04
05
06
07
08
09
10
11
12
13-1
15
16
17
18
19
20
21
22
23
24-2

d.
stands

ise and

4-3. TEST MODE 2 :

Is available by pressing Test button two times, OSD "TT"appears. The functions described bellow are available by pressing the two numbors. To release the Test Mode 2, press two times 0, or switch TV in Standby Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Aging Condition (Volumin., Picture max., Brightness max., Aging 2 Mode of CXA 1587, TDA 2595 is locked to CXA 1587 via PIN 34 of μ-Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13-14	dummy
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM
17	Preset Lavel for AV Sources
18	dummy
19	Stereo Seperation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy
30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA 9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA 1587 (Only in Plog 99 available)
42	Default setting of CXA 2018 (Only in Plog 99 available)
43	Default setting of CXA 1526 (Only in Plog 99 available)
44	(all Port High) Not yet
45	(all Port High) Not yet
46-48	dummy
49	Erease the NVM Testbyte (this byte detects already stored NMV's) After selecting this function, switch TV Off and On → the NVM will be preset by μ-Controller. (Not the channel data)

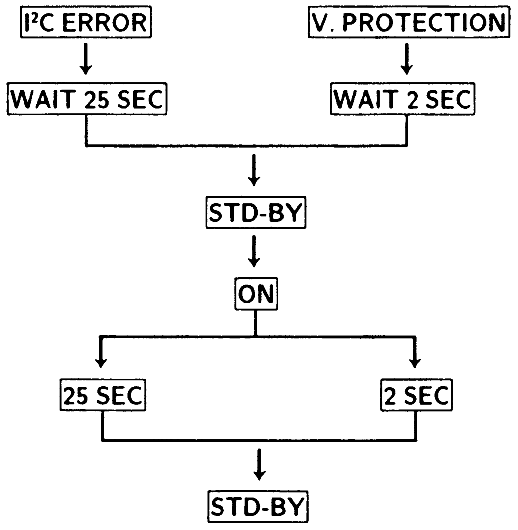
Note : For No. 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA 9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnos system can operates as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.



In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs shows error 2) .

TABLE OF ERRORS

ERROR COUNT	IC TYPE	FUNCTION
1	Ⅱ C BUS	SDA low
2	X 24 C 16	EEPROM
3	SDA 3202	Tuner Pll
4	TDA 9145	Colour decoder
5	CXA 1587	RGB/Jungle
6	TDA 6612	Sound processor
7	CXD 2018	V deflection
8	CXA 1545	AV switch
11	SDA 5248	Text
13		V protection

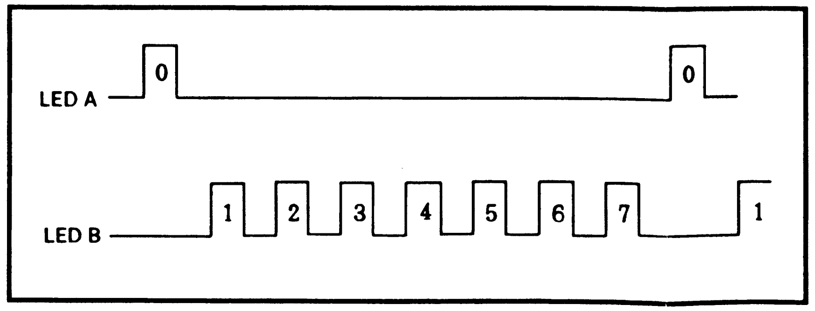
Stand by LED blinking

No IK return

4-5. ERROR Ⅱ C BUS DIAGNOSIS SYSTEM IN AE 2 CHASSIS AVAILABLE

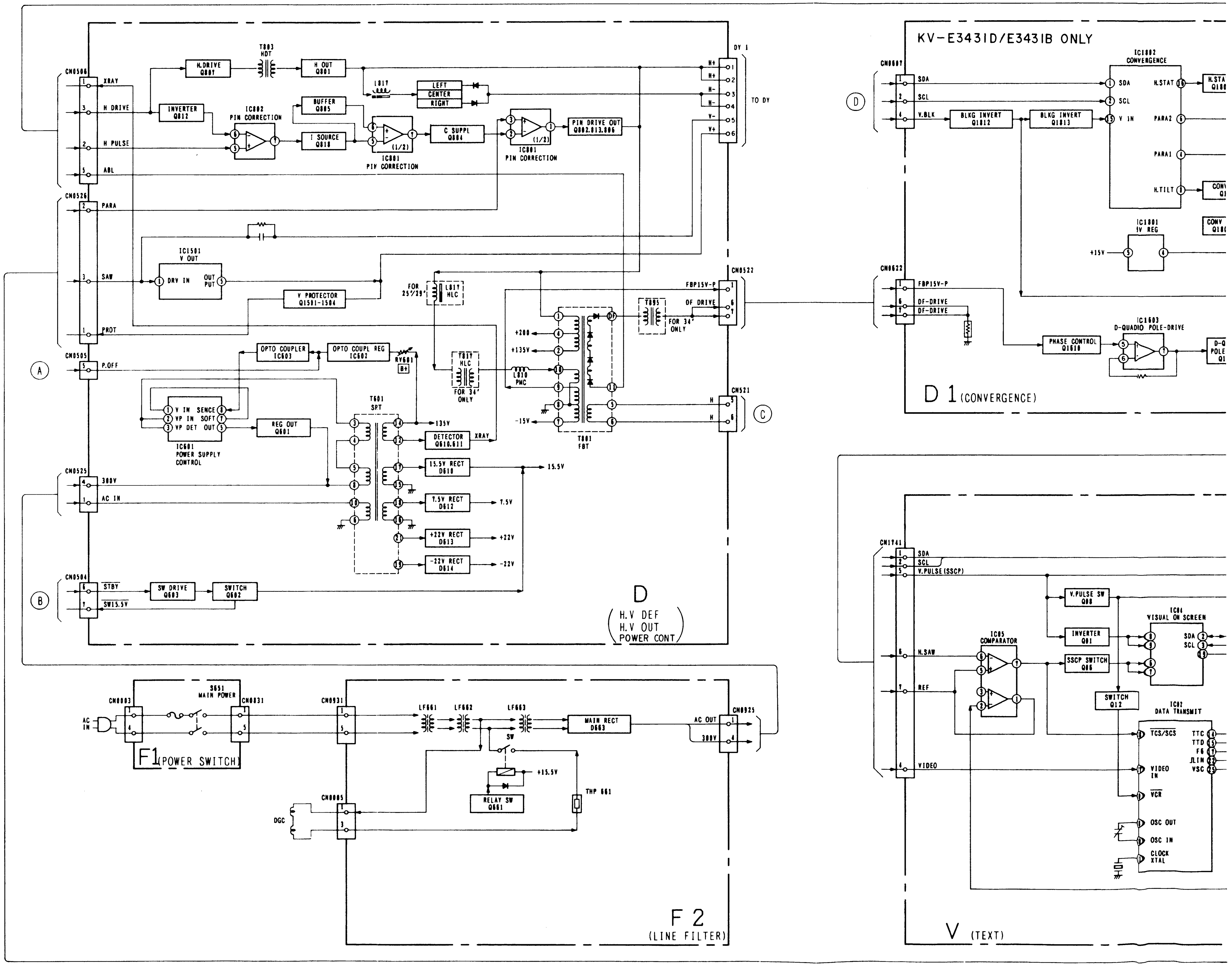
For all ICs in AE 2 chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

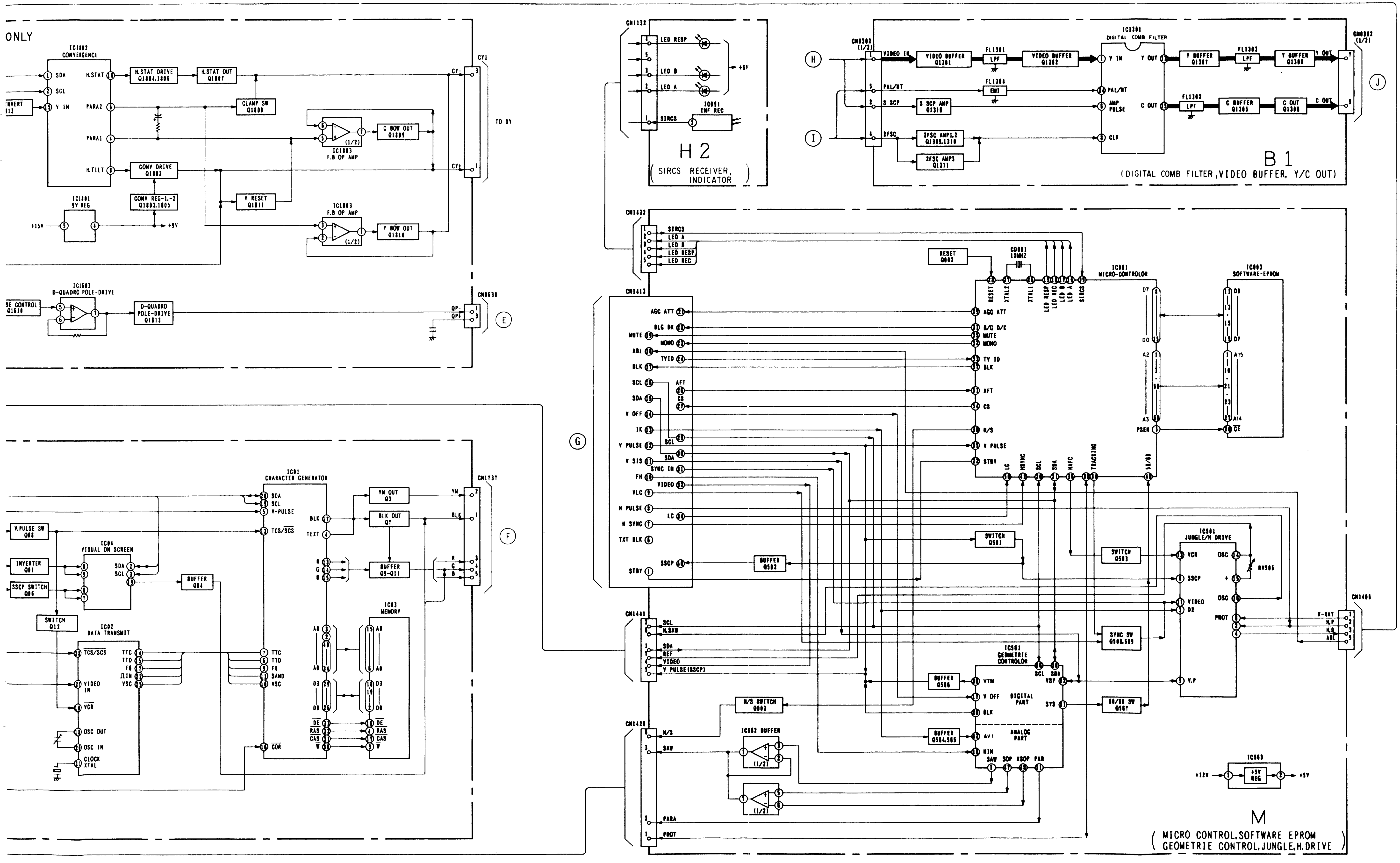
In case of no acknowledge bit, LED A and LED B starts blinking as shown.



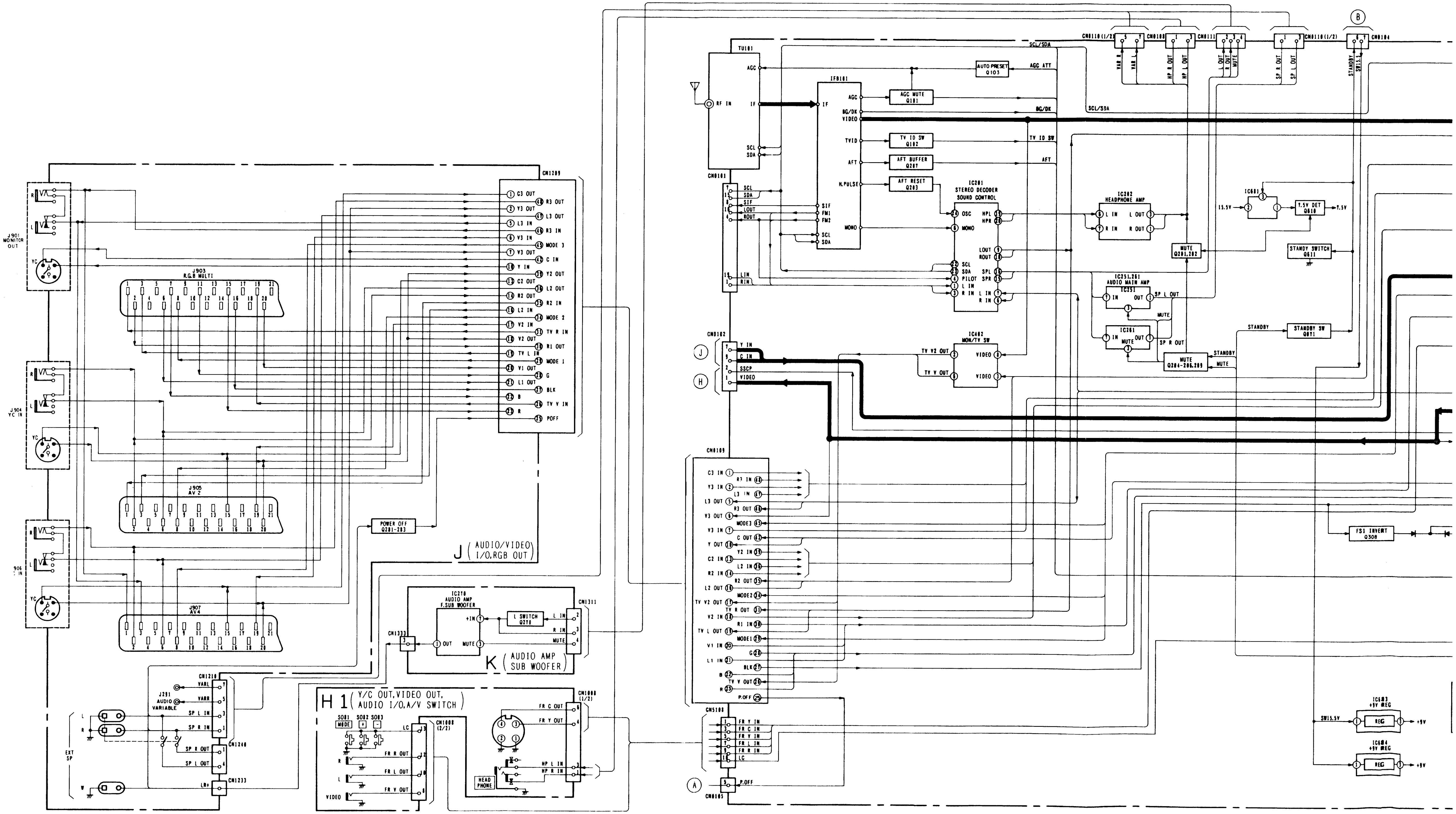
SECTION 5
DIAGRAMS

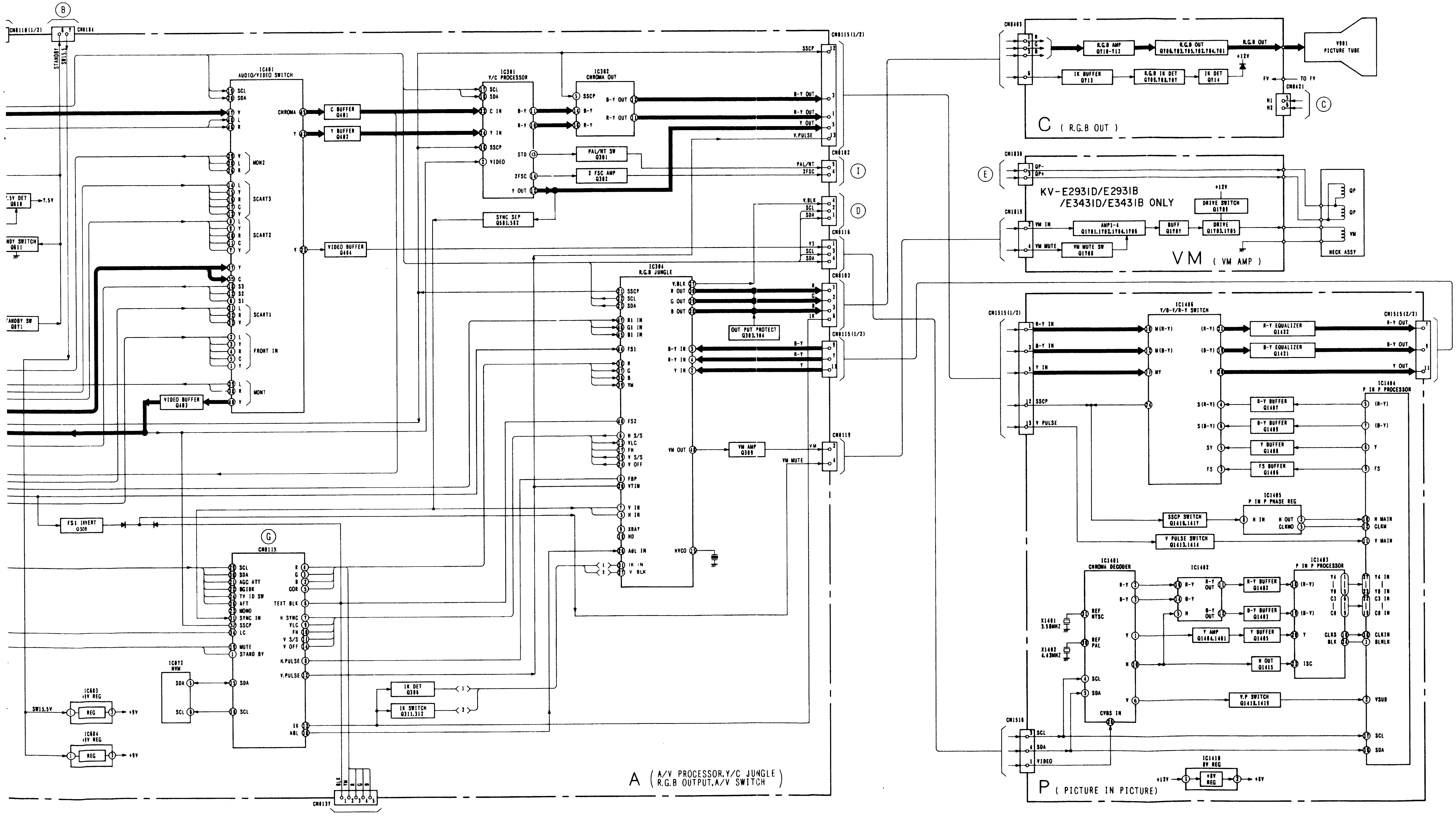
5-1. BLOCK DIAGRAMS (1)


CN0506
XRAY
H DRIVE
H PULSE
ABL
CN0526
PARA
SAW
PROT
CN0505
P.OFF
CN0525
300V
AC IN
CN0504
STBY
SW15.5V
H.DRIVE Q801
T803 HDT
H OUT Q801
L817
LEFT
CENTER
RIGHT
INVERTER Q812
IC802 PIN CORRECTION
BUFFER Q805
I SOURCE Q818
IC801 PIN CORRECTION
C SUPPL Q804
IC801 PIN CORRECTION
PIN DRIVE OUT Q802,813,806
DY 1
H+
H-
V-
V+
TO DY
IC1501 V OUT
DRV IN
OUT PUT
V PROTECTOR Q1501-1504
FOR 25"/29"
L817 HLC
T805
FOR 34" ONLY
CN0522
FBP15V-P
DF DRIVE
+200
+135V
-15V
L810 PMC
T817 HLC
FOR 34" ONLY
T801 FBT
CN521
OPTO COUPLER IC603
OPTO COUPL REG IC602
RV601 B+
IC601 POWER SUPPLY CONTROL
V IN SENCE
VP IN SOFT
VP DET OUT
REG OUT Q601
T601 SPT
135V
DETECTOR Q610,611
XRAY
15.5V RECT D610
15.5V
7.5V RECT D612
7.5V
+22V RECT D613
+22V
-22V RECT D614
-22V
SW DRIVE Q603
SWITCH Q602
D
H.V DEF
H.V OUT
POWER CONT
A
B
C
D
CN0003
AC IN
S651 MAIN POWER
CN0031
F1 (POWER SWITCH)
CN0931
LF661
LF662
LF663
MAIN RECT D663
AC OUT
300V
CN0925
SW
+15.5V
RELAY SW Q661
THP 661
CN0005
DGC
F 2 (LINE FILTER)
KV-E3431D/E3431B ONLY
CN0007
SDA
SCL
V.BLK
BLKG INVERT Q1812
BLKG INVERT Q1813
IC1802 CONVERGENCE
SDA
SCL
V IN
H.STAT
PARA2
PARA1
H.TILT
IC1801 9V REG
+15V
CN0622
FBP15V-P
DF-DRIVE
DF-DRIVE
PHASE CONTROL Q1610
IC1603 D-QUADIO POLE-DRIVE
D 1 (CONVERGENCE)
CN1741
SDA
SCL
V.PULSE (SSCP)
H.SAW
REF
VIDEO
IC05 COMPARATOR
V.PULSE SW Q08
INVERTER Q01
SSCP SWITCH Q06
IC04 VISUAL ON SCREEN
SWITCH Q12
IC02 DATA TRANSMIT
TCS/SCS
VIDEO IN
VCR
OSC OUT
OSC IN
CLOCK XTAL
V (TEXT)

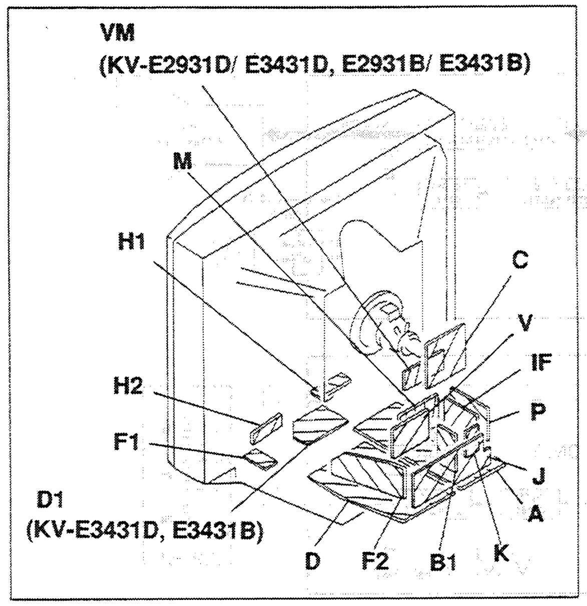

ONLY
IC1802 CONVERGENCE
SDA
SCL
V IN
INVERT
H.STAT
PARA2
PARA1
H.TILT
H.STAT DRIVE Q1804,1806
H.STAT OUT Q1807
CLAMP SW Q1808
C BOW OUT Q1809
IC1803 F.B OP AMP
CONV DRIVE Q1802
CONV REG-1,-2 Q1803,1805
V RESET Q1811
Y BOW OUT Q1810
IC1801 9V REG
+15V
+9V
CY1
CY-
CY+
TO DY
IC1603 D-QUADRO POLE-DRIVE
D-QUADRO POLE-DRIVE Q1613
CN0638
QP-
QP+
E
IC01 CHARACTER GENERATOR
SDA
SCL
V-PULSE
TCS/SCS
BLK
TEXT
YM OUT Q3
BLK OUT Q7
BUFFER Q9-Q11
YM
BLK
R
G
B
CN1731
F
V.PULSE SW Q08
INVERTER Q01
SSCP SWITCH Q06
IC04 VISUAL ON SCREEN
BUFFER Q04
SWITCH Q12
IC02 DATA TRANSMIT
TCS/SCS
TTC
TTD
FS
ЛLIN
VSC
VIDEO IN
VCR
OSC OUT
OSC IN
CLOCK XTAL
TTC
TTD
FS
SAND
VSC
COR
IC03 MEMORY
A0
A8
D3
D0
DE
RAS
CAS
W
CN1132
LED RESP
LED B
LED A
SIRCS
+5V
IC091 INF REC
H2
(SIRCS RECEIVER, INDICATOR)
H
I
CN0302 (1/2)
VIDEO IN
PAL/NT
S SCP
2FSC
VIDEO BUFFER Q1301
FL1301 LPF
VIDEO BUFFER Q1302
FL1304 EMI
S SCP AMP Q1310
2FSC AMP1,2 Q1309,1310
2FSC AMP3 Q1311
IC1301 DIGITAL COMB FILTER
V IN
Y OUT
PAL/NT
AMP PULSE
C OUT
CLK
Y BUFFER Q1307
FL1303 LPF
Y BUFFER Q1308
FL1302 LPF
C BUFFER Q1305
C OUT Q1306
Y OUT
C OUT
CN0302 (1/2)
J
B1
(DIGITAL COMB FILTER, VIDEO BUFFER, Y/C OUT)
CN1432
SIRCS
LED A
LED B
LED RESP
LED REC
RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLER
RESET
XTAL2
XTAL1
LED RESP
LED REC
LED B
LED A
SIRCS
D7
D0
A2
A3
PSEN
IC003 SOFTWARE-EPROM
D0
D7
A15
A14
CE
CN1413
G
AGC ATT
BLG BK
MUTE
MONO
ABL
TVID
BLK
SCL
AFT
SDA
CS
V OFF
IK
V PULSE
SCL
V SIS
SDA
SYNC IN
FH
VIDEO
VLC
H PULSE
LC
H SYNC
TXT BLK
SSCP
STBY
AGC ATT
B/G D/K
MUTE
MONO
TV ID
BLK
AFT
CS
H/S
V PULSE
STBY
LC
HSYNC
SCL
SDA
HAFC
TRACKING
50/60
SWITCH Q501
BUFFER Q502
SWITCH Q503
IC501 JUNGLE/H DRIVE
VCR
SSCP
VIDEO
D2
OSC
OSC
PROT
RV505
SYNC SW Q508,509
V.P
CN1406
X-RAY
H.P
H.D
ABL
CN1441
SCL
H.SAW
SDA
REF
VIDEO
V PULSE(SSCP)
IC561 GEOMETRIE CONTROL
SCL
SDA
VSY
BUFFER Q506
VTM
V OFF
DIGITAL PART
BLK
SYS
50/60 SW Q507
H/S SWITCH Q003
IC562 BUFFER
BUFFER Q504,505
AV1
ANALOG PART
HIN
SAW
SOP
XSOP
PAR
CN1426
H/S
SAW
PARA
PROT
IC563
+12V
+5V REG
+5V
M
(MICRO CONTROL, SOFTWARE EPROM
GEOMETRIE CONTROL, JUNGLE, H.DRIVE)

5-2. BLOCK DIAGRAMS (2)


J901
MONITOR
OUT
J903
R.G.B MULTI
J904
YC IN
J905
AV 2
J906
IN
J907
AV4
CN1209
C3 OUT
Y3 OUT
L3 IN
V3 IN
V3 OUT
Y IN
C2 OUT
R2 OUT
L2 IN
Y2 IN
Y2 OUT
TV L IN
V1 OUT
L1 OUT
B
R
R3 OUT
L3 OUT
R3 IN
MODE 3
C IN
Y2 OUT
L2 OUT
R2 IN
MODE 2
TV R IN
R1 OUT
MODE 1
G
BLK
TV V IN
POFF
POWER OFF
Q281-283
J (AUDIO/VIDEO I/O,RGB OUT)
IC270
AUDIO AMP
F.SUB WOOFER
L SWITCH
Q270
+IN
OUT
MUTE
L IN
R IN
CN1311
CN1333
K (AUDIO AMP SUB WOOFER)
CN1210
J291
AUDIO
VARIABLE
VARL
VARR
SP L IN
SP R IN
SP R OUT
SP L OUT
CN1240
CN1233
LR+
EXT SP
H 1 (Y/C OUT,VIDEO OUT, AUDIO I/O,A/V SWITCH)
S081 S082 S083
MODE
LC
FR R OUT
FR L OUT
FR V OUT
VIDEO
CN1008 (2/2)
CN1008 (1/2)
FR C OUT
FR Y OUT
HEAD PHONE
HP L IN
HP R IN
TU101
AGC
IF
RF IN
SCL
SDA
IF8101
BG/DK
VIDEO
TVID
AFT
H.PULSE
SIF
FM1
FM2
MONO
AGC MUTE
Q101
TV ID SW
Q102
AFT BUFFER
Q207
AFT RESET
Q203
AUTO PRESET
Q103
AGC ATT
SCL/SDA
TV ID SW
IC201
STEREO DECODER
SOUND CONTROL
OSC
HPL
HPR
LOUT
ROUT
PILOT
SPL
SPR
L IN
R IN
CN0101
LOUT
ROUT
LIN
RIN
CN0102
C IN
SSCP
IC402
MON/TV SW
TV V2 OUT
TV V OUT
IC202
HEADPHONE AMP
L OUT
R OUT
MUTE
Q201,202
IC251,261
AUDIO MAIN AMP
IC251
SP L OUT
IC261
SP R OUT
MUTE
Q204-206,209
STANDBY
IC601
15.5V
1.5V DET
Q610
1.5V
STANDY SWITCH
Q611
STANDBY SW
Q071
CN0110 (1/2)
CN0108
CN0111
CN0110 (1/2)
CN0104
VAR R
VAR L
HP R OUT
HP L OUT
R OUT
L OUT
MUTE
SP R OUT
SP L OUT
STANDBY
SW15.5V
CN0109
C3 IN
Y3 IN
L3 OUT
V3 OUT
V3 IN
Y OUT
C2 IN
R2 IN
L2 OUT
TV V2 OUT
V2 IN
TV L OUT
V1 IN
L1 IN
R3 IN
L3 IN
R3 OUT
MODE3
C OUT
Y2 IN
L2 IN
R2 OUT
MODE2
TV R OUT
R1 IN
MODE1
G
BLK
TV V OUT
P.OFF
CN5100
FR Y IN
FR C IN
FR V IN
FR L IN
FR R IN
LC
CN0105
P.OFF
FS1 INVERT
Q308
IC603
+9V REG
IC604
+9V REG
+9V
A
B
H
J


B
CN0110(1/2)
CN0104
STANDBY
SW15.5V
IC401
AUDIO/VIDEO SWITCH
SCL
SDA
CHROMA
C BUFFER Q401
Y BUFFER Q402
MON2
SCART3
SCART2
SCART1
FRONT IN
MON1
VIDEO BUFFER Q404
VIDEO BUFFER Q403
T.5V DET Q610
STANDBY SWITCH Q611
STANDBY SW Q071
IC301
Y/C PROCESSOR
C IN
Y IN
SSCP
VIDEO
STD
2FSC
Y OUT
IC302
CHROMA OUT
B-Y OUT
R-Y OUT
PAL/NT SW Q301
2 FSC AMP Q302
SYNC SEP Q501,502
CN0115(1/2)
B-Y OUT
R-Y OUT
Y OUT
V.PULSE
CN0102
PAL/NT
2FSC
I
V.BLK
D
CN0116
V3
CN0103
IC304
R.G.B JUNGLE
V.BLK
R OUT
G OUT
B OUT
R1 IN
G1 IN
B1 IN
FS1
FS2
H S/S
VLC
FH
V S/S
V OFF
FBP
VTIM
V IN
H IN
XRAY
HD
ABL IN
IK IN
V BLK
B-Y IN
R-Y IN
Y IN
VM OUT
HVCO
OUT PUT PROTECT Q303,304
VM AMP Q309
CN0119
VM
VM MUTE
IK
FS1 INVERT Q308
G
CN0113
AGC ATT
BGIDK
TV ID SW
AFT
MONO
SYNC IN
LC
MUTE
STAND BY
TEXT BLK
H SYNC
H.PULSE
V.PULSE
COR
ABL
IC072 NVM
IC683 +9V REG
IC684 +9V REG
REG
+9V
SW15.5V
IK DET Q306
IK SWITCH Q311,312
CN0137
BLK
VM
A (A/V PROCESSOR,Y/C JUNGLE R.G.B OUTPUT,A/V SWITCH)
CN0403
R.G.B AMP Q710-712
R.G.B OUT Q706,703,705,702,704,701
R.G.B OUT
V901 PICTURE TUBE
IK BUFFER Q713
R.G.B IK DET Q705,708,707
IK DET Q714
+12V
FV
TO FV
CN0421
H1
H2
C
C (R.G.B OUT)
CN1030
E
QP-
QP+
KV-E2931D/E2931B /E3431D/E3431B ONLY
DRIVE SWITCH Q1709
CN1019
VM IN
AMP1-4 Q1701,1702,1704,1706
BUFF Q1707
DRIVE Q1703,1705
VM MUTE
VM MUTE SW Q1708
QP
VM
NECK ASSY
VM (VM AMP)
CN1515(1/2)
R-Y IN
B-Y IN
Y IN
SSCP
V PULSE
IC1406
Y/B-Y/R-Y SWITCH
M(R-Y)
M(B-Y)
MY
S(R-Y)
S(B-Y)
SY
FS
R-Y EQUALIZER Q1422
B-Y EQUALIZER Q1421
CN1515(2/2)
R-Y OUT
B-Y OUT
Y OUT
IC1404
P IN P PROCESSOR
R-Y BUFFER Q1407
B-Y BUFFER Q1409
Y BUFFER Q1408
FS BUFFER Q1406
IC1405
P IN P PHASE REG
SSCP SWITCH Q1416,1417
H IN
H OUT
CLKMO
H MAIN
CLKM
V PULSE SWITCH Q1413,1414
V MAIN
IC1401
CHROMA DECODER
REF NTSC
REF PAL
X1401 3.58MHZ
X1402 4.43MHZ
CVBS IN
IC1402
R-Y OUT
B-Y OUT
R-Y BUFFER Q1402
B-Y BUFFER Q1403
Y AMP Q1404,1401
Y BUFFER Q1405
H OUT Q1415
IC1403
P IN P PROCESSOR
Y4 IN
Y0 IN
C3 IN
C0 IN
CLKS
BLK
CLKIN
BLNLK
ISC
V.P SWITCH Q1418,1419
VSUB
CN1516
VIDEO
IC1410 8V REG
+8V REG
+12V
+8V
P (PICTURE IN PICTURE)

5-3. CIRCUIT BOARDS LOCATION


VM
(KV-E2931D/ E3431D, E2931B/ E3431B)
M
H1
C
V
IF
H2
P
F1
J
A
D1
(KV-E3431D, E3431B)
D
F2
B1
K

5-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

— Conductor Side —

Note:

- All capacitors are in µF unless otherwise noted.
  pF: µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All electrolytics are in 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000KΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm
Rating electrical power 1/4W

- METAL FILM (:RN) resistors in 1%, 1/6W unless otherwise noted.
- Chip resistors are 1/10W otherwise noted.
- METAL CHIP (:RN-CP) resistors in 0.5%, 1/6W unless otherwise noted.
- ▭ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- No mark : PAL or COMMON
- ( ) : SECAM
- [ ] : NTSC 4.43
- < > : NTSC 3.58
- ▬▬ : B+ bus.
- ▬ ▬ ▬ : B- bus.
- ⟹ : signal path. (RF)
- Circuled numbers are waveform references.

Reference information

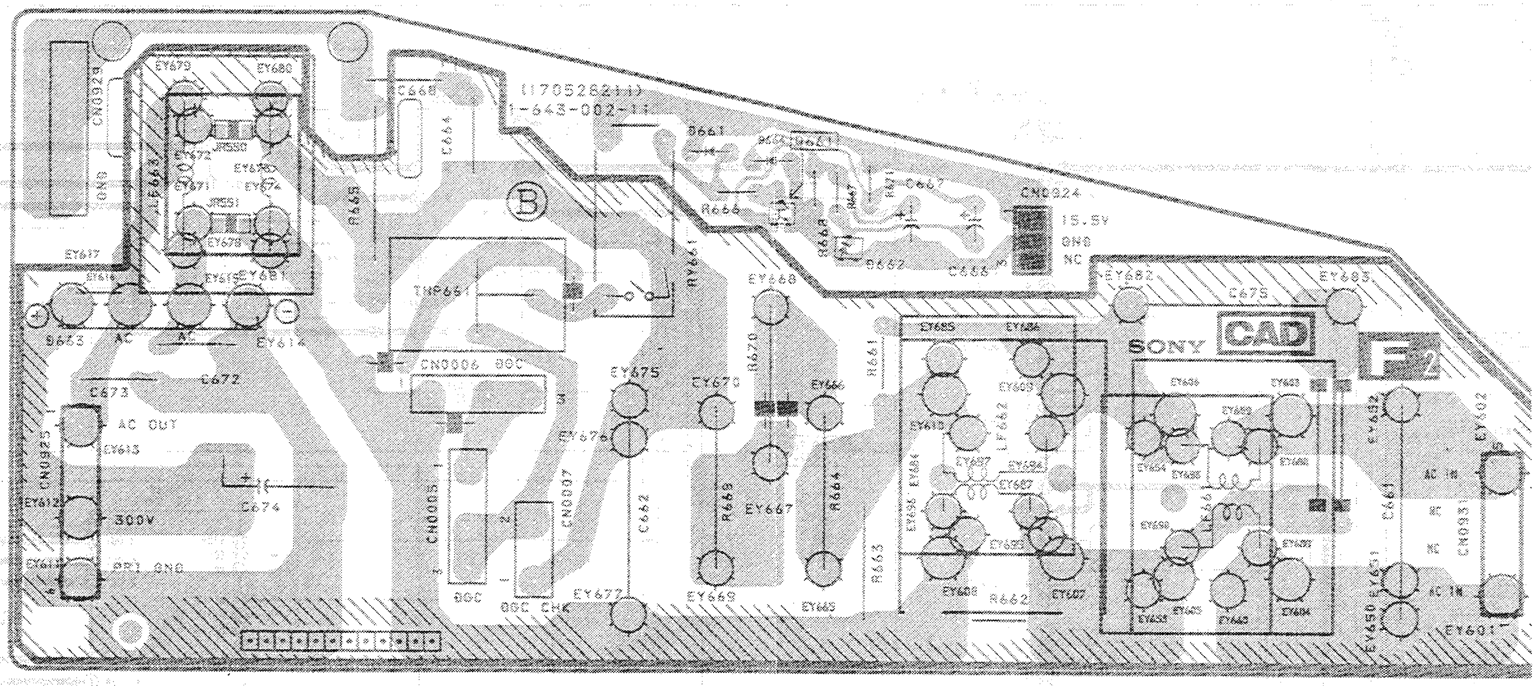
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note:
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

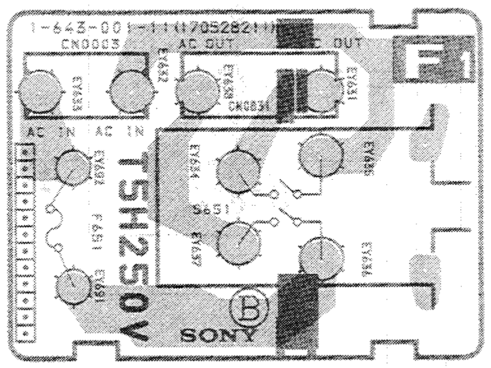
Note:
Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

F2 [LINE FILTER] **F1** [AC IN, POWER SW] **H1** [Y/C OUT, VIDEO OUT, AUDIO I/O, A/V SWITCH]

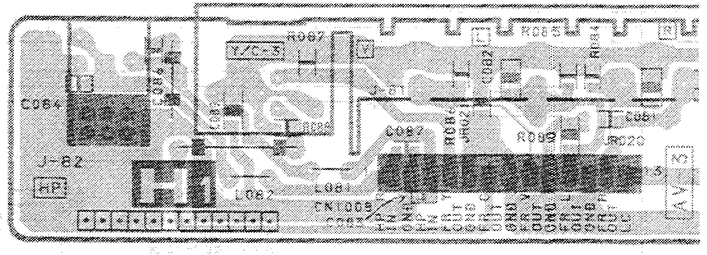
— F2 Board —


CN6924
EY679
EY680
1-643-002-11
(17052821)
C668
C664
R661
R665
B
R666
CN0924
15.5V
GND
NC
EY617
EY614
TNP661
R663
AC
AC
EY614
C673
C672
AC OUT
EY613
300V
PRI GND
C674
CN0006 DGC
CN0005
CN0007
C662
R669
R670
EY667
EY675
EY676
EY677
EY668
EY669
R664
R663
R662
SONY
CAD
F2
AC IN
EY601
EY602

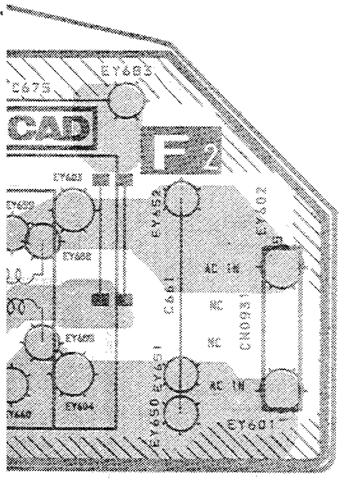
— F1 Board —

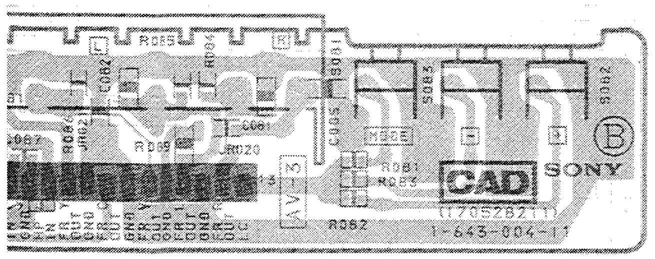

1-643-001-11 (17052821)
CN0003
AC OUT
AC OUT
F1
AC IN
AC IN
T5H250V
S651
F651
B
SONY

— H1 Board —


Y/C-3
R087
R085
C084
J-81
J-82
HP
H1
L082
L081
CN1005
C087
R089
C081
A/V

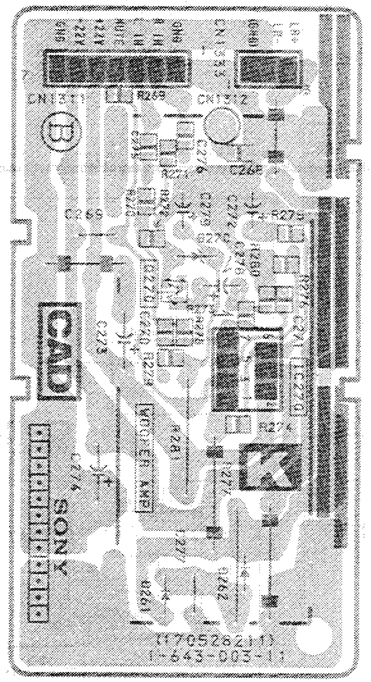
CH]




CAD
SONY
1-643-004-11

K [WOOFER AMP]

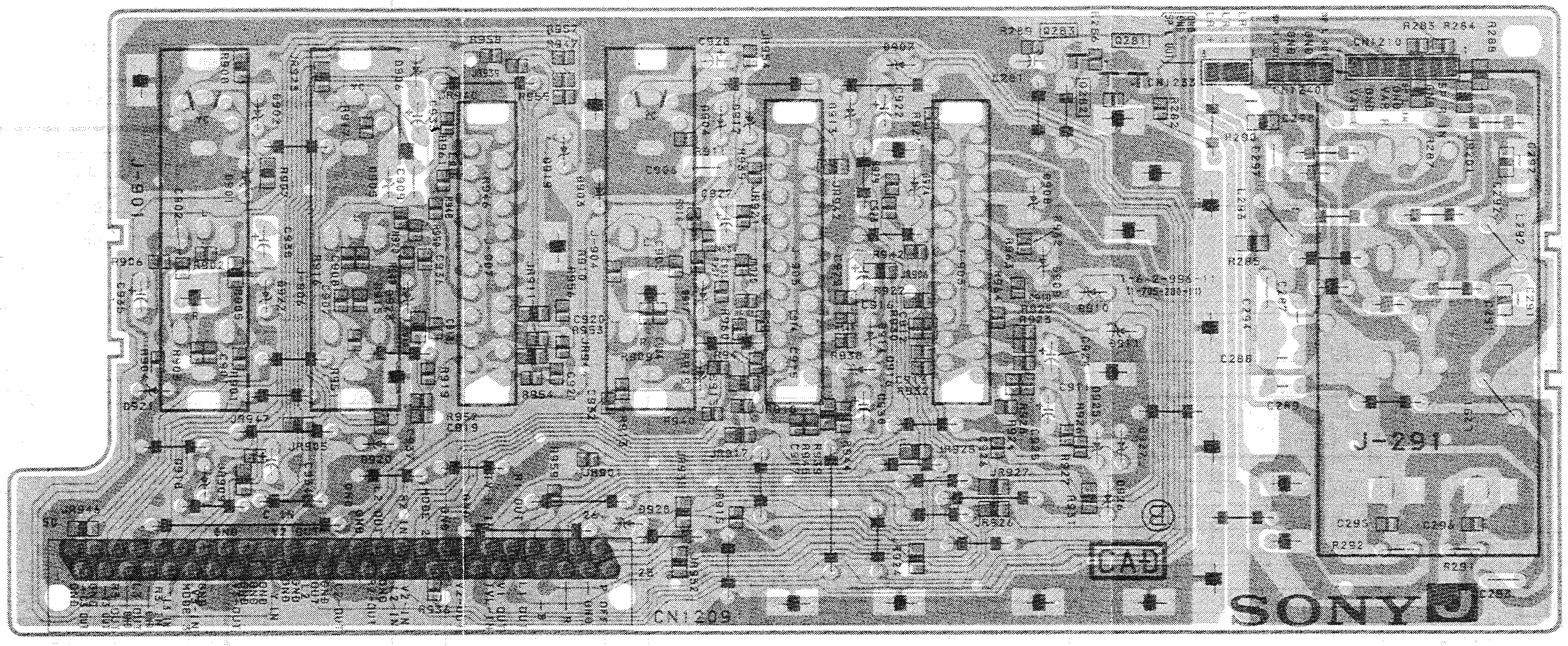
— K Board —


CN1311
CN1312
CAD
SONY
K
1-643-003-11

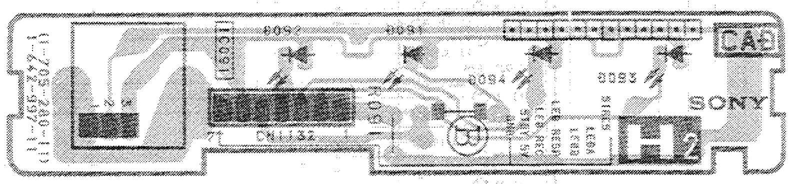
J [AUDIO/ VIDEO I/O]

— J Board —

H2 [REMOTE SENSOR, A.B SAT AND RES INDICATOR]

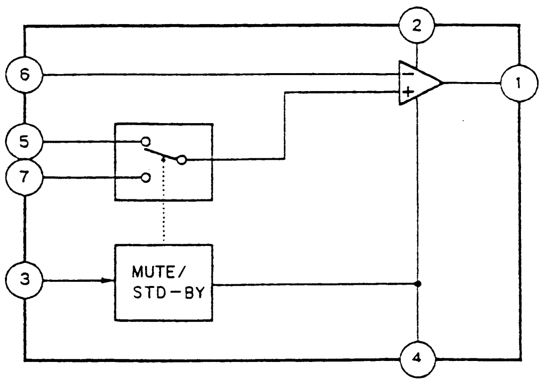

J-901
J-291
CN1209
CAD
SONY
J

— H2 Board —

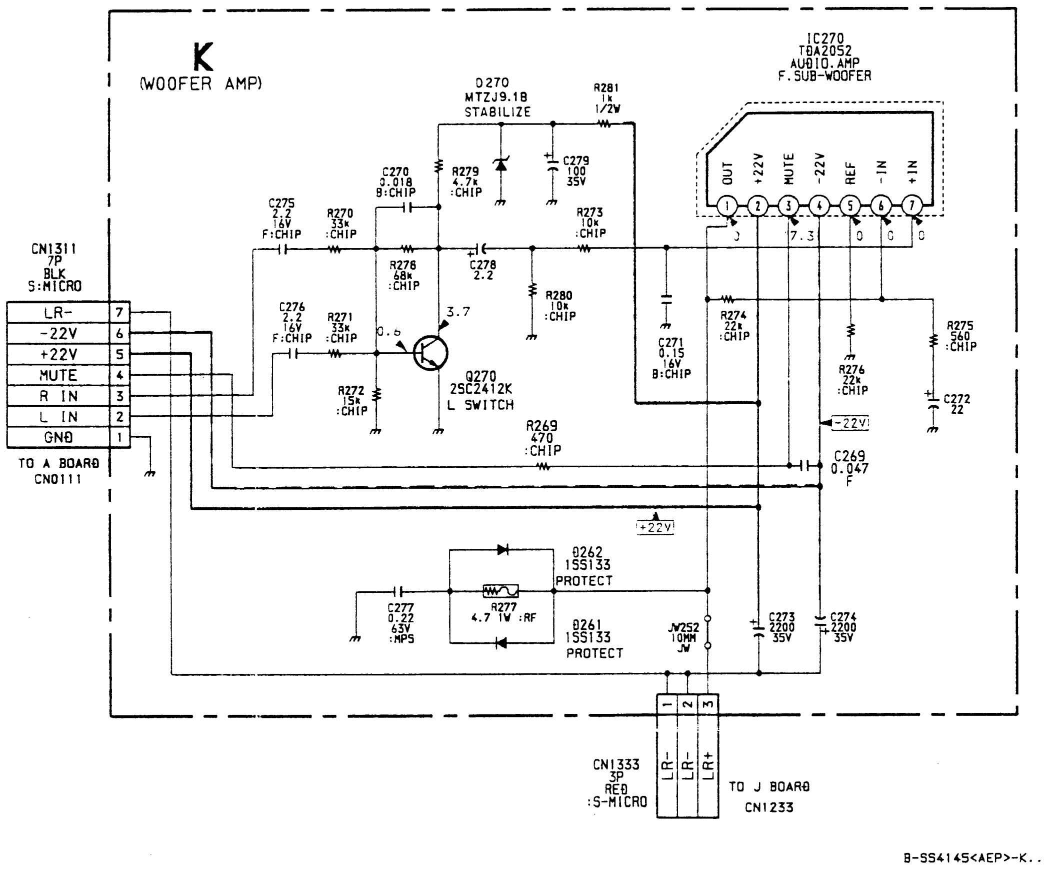

CN1132
CAD
SONY
H2

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

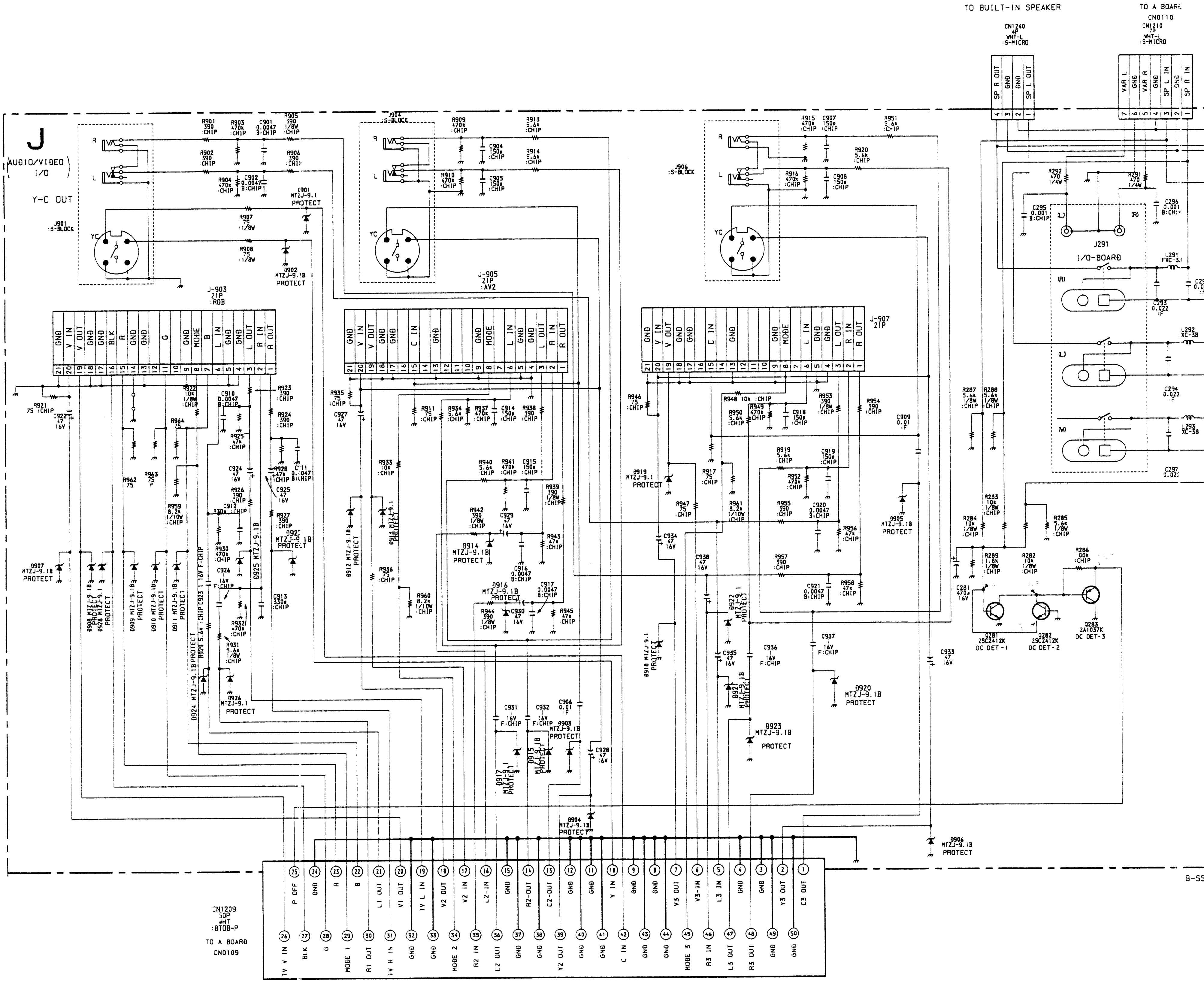
K BOARD IC270 TDA2052



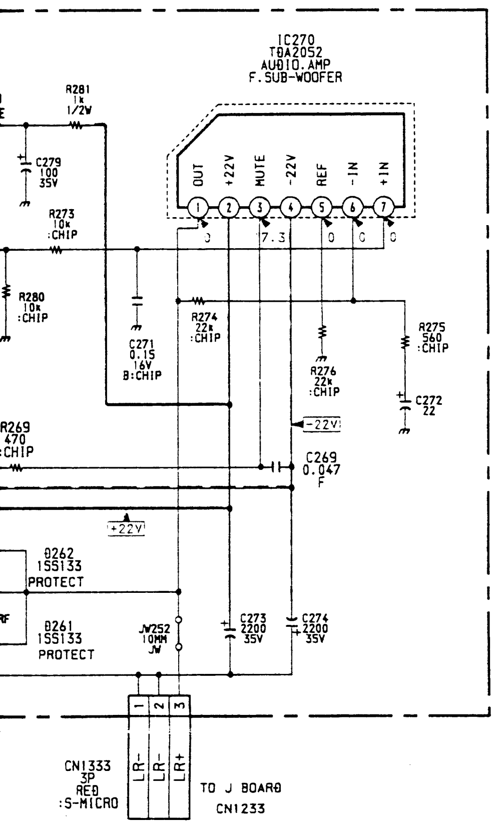
1
2
3
4
5
6
7
MUTE/
STD-BY



K
(WOOFER AMP)
IC270
TDA2052
AUDIO AMP
F.SUB-WOOFER
D270
MTZJ9.1B
STABILIZE
R281
1k
1/2W
C279
100
35V
C270
0.018
B:CHIP
R279
4.7k
:CHIP
R273
10k
:CHIP
C275
2.2
16V
F:CHIP
R270
33k
:CHIP
R276
68k
:CHIP
C278
2.2
R280
10k
:CHIP
C276
2.2
16V
F:CHIP
R271
33k
:CHIP
Q270
2SC2412K
L SWITCH
R272
15k
:CHIP
R269
470
:CHIP
C271
0.15
16V
B:CHIP
R274
22k
:CHIP
R276
22k
:CHIP
R275
560
:CHIP
C272
22
C269
0.047
F
OUT
+22V
MUTE
-22V
REF
-IN
+IN
CN1311
7P
BLK
S:MICRO
LR-
-22V
+22V
MUTE
R IN
L IN
GND
TO A BOARD
CN0111
-22V
+22V
D262
1SS133
PROTECT
C277
0.22
63V
:MPS
R277
4.7 1W :RF
D261
1SS133
PROTECT
JW252
10MM
:JW
C273
2200
35V
C274
2200
35V
CN1333
3P
RED
:S-MICRO
LR-
LR-
LR+
TO J BOARD
CN1233
B-SS4145<AEP>-K..

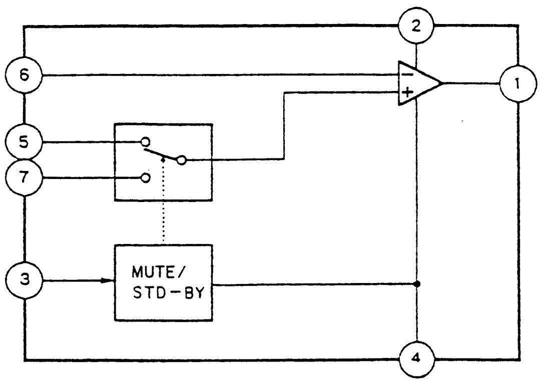


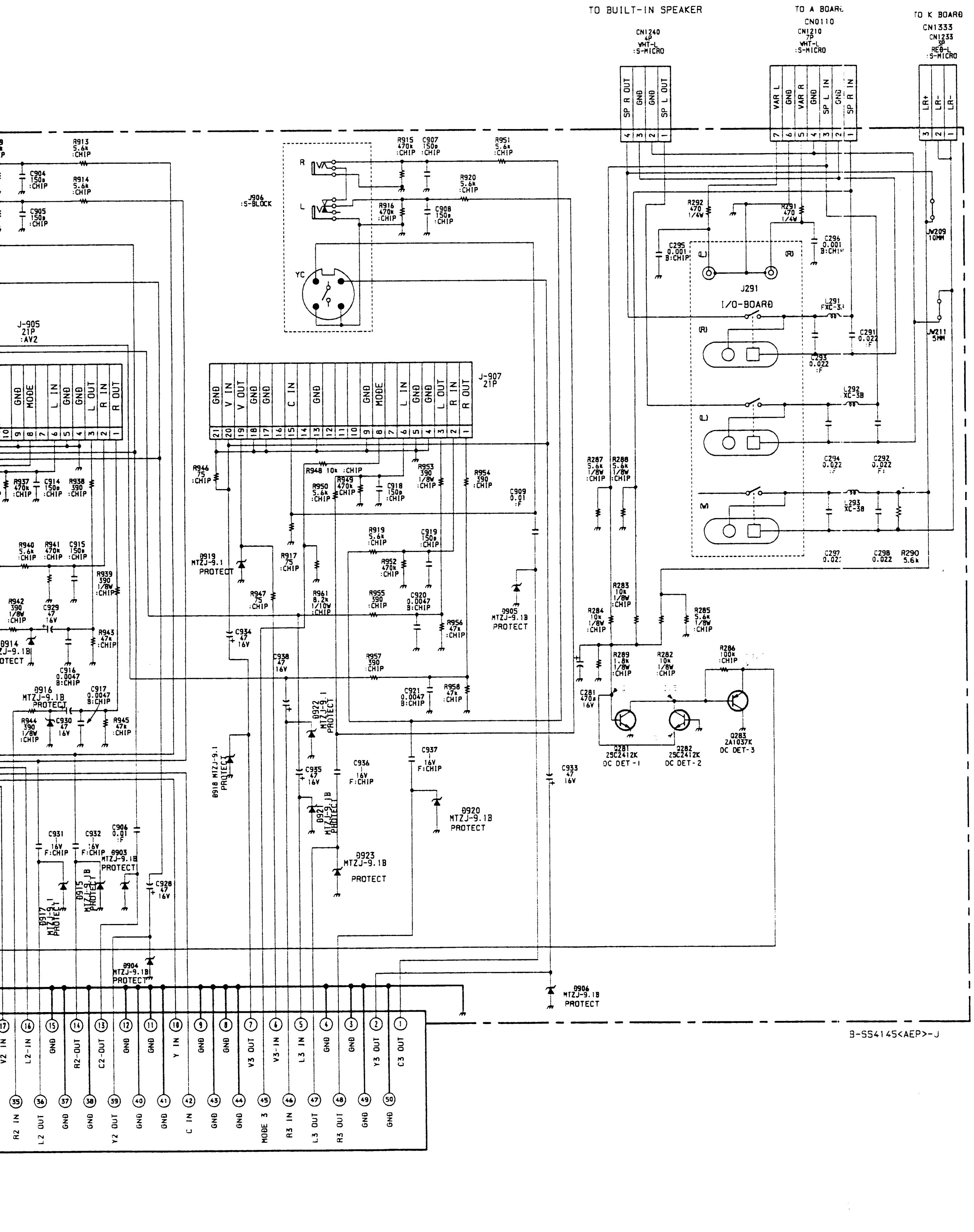
J
(AUDIO/VIDEO I/O)
Y-C OUT
J901
:S-BLOCK
J904
:S-BLOCK
J906
:S-BLOCK
J-903
21P
:RGB
J-905
21P
:AV2
J-907
21P
TO BUILT-IN SPEAKER
CN1240
4P
WHT-L
:S-MICRO
SP R OUT
GND
GND
SP L OUT
TO A BOARD
CN0110
CN1210
7P
WHT-L
:S-MICRO
VAR L
GND
VAR R
GND
SP L IN
GND
SP R IN
J291
I/O-BOARD
Q281
2SC2412K
DC DET-1
Q282
2SC2412K
DC DET-2
Q283
2A1037K
DC DET-3
CN1209
50P
WHT
:BTOB-P
TO A BOARD
CN0109
P OFF
GND
R
B
L1 OUT
V1 OUT
TV L IN
V2 OUT
V2 IN
L2-IN
GND
R2-OUT
C2-OUT
GND
GND
Y IN
GND
GND
V3 OUT
V3-IN
L3 IN
GND
GND
Y3 OUT
C3 OUT
TV V IN
BLK
G
MODE 1
R1 OUT
TV R IN
GND
MODE 2
R2 IN
L2 OUT
Y2 OUT
GND
C IN
GND
MODE 3
R3 IN
L3 OUT
R3 OUT
GND
D907
MTZJ-9.1B
PROTECT
D901
MTZJ-9.1
PROTECT
D902
MTZJ-9.1B
PROTECT
D904
MTZJ-9.1B
PROTECT
D905
MTZJ-9.1B
PROTECT
D906
MTZJ-9.1B
PROTECT
D920
MTZJ-9.1B
PROTECT
D923
MTZJ-9.1B
PROTECT
D926
MTZJ-9.1
PROTECT
D903
MTZJ-9.1B
PROTECT
D914
MTZJ-9.1B
PROTECT
D916
MTZJ-9.1B
PROTECT
D919
MTZJ-9.1
PROTECT
B-SS


IC270
TDA2052
AUDIO AMP
F.SUB-WOOFER
R281 1k 1/2W
C279 100 35V
R273 10k :CHIP
R280 10k :CHIP
R274 22k :CHIP
C271 0.15 16V B:CHIP
R276 22k :CHIP
R275 560 :CHIP
C272 22
R269 470 :CHIP
C269 0.047 F
-22V
+22V
D262 1SS133 PROTECT
D261 1SS133 PROTECT
JW252 10MM JW
C273 2200 35V
C274 2200 35V
OUT +22V MUTE -22V REF -IN +IN
7.3
CN1333 3P RED :S-MICRO
LR- LR- LR+
TO J BOARD CN1233

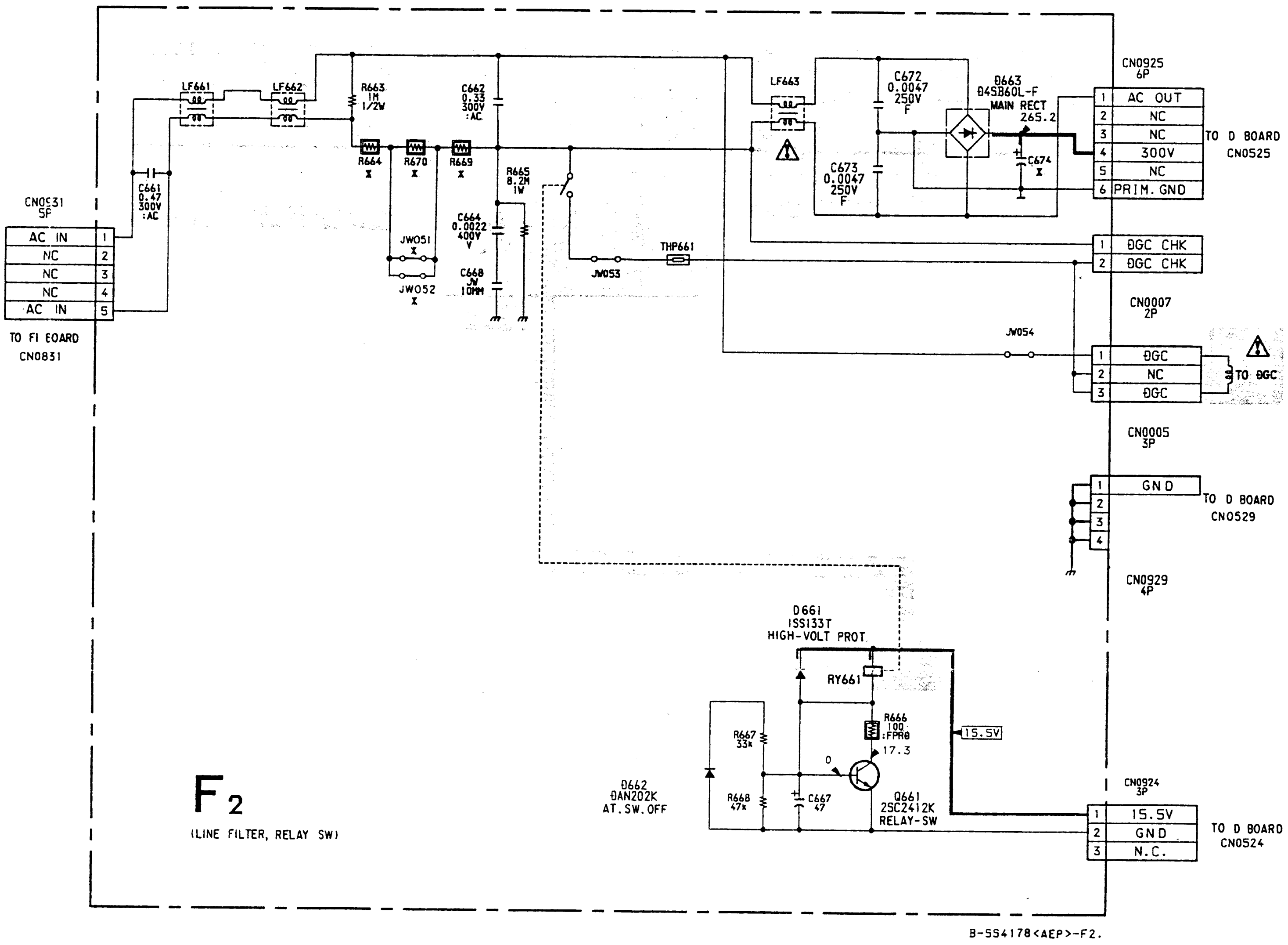
B-SS4145<AEP>-K..

K BOARD IC270 TDA2052


2
6
1
5
7
3
MUTE/ STD-BY
4

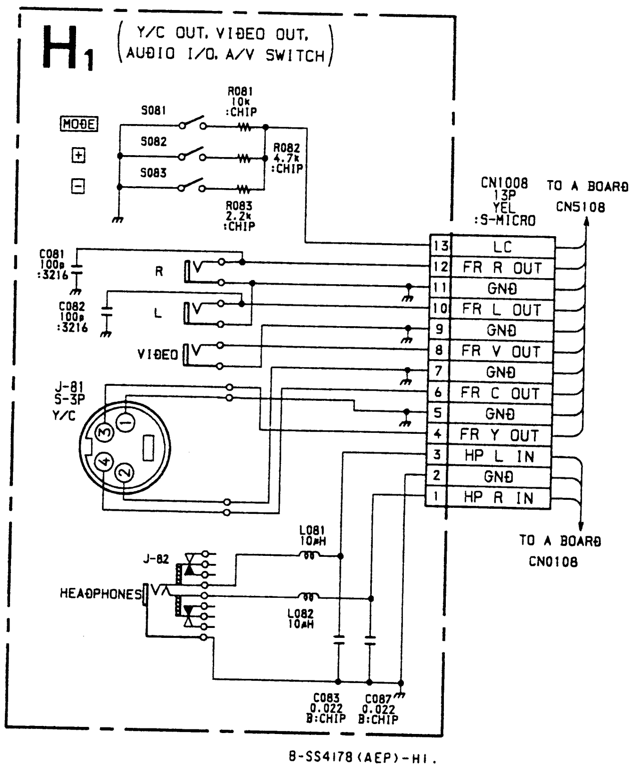

TO BUILT-IN SPEAKER
CN1240 4P WHT-L :S-MICRO
SP R OUT GND GND SP L OUT
TO A BOARD CN0110
CN1210 7P WHT-L :S-MICRO
VAR L GND VAR R GND SP L IN GND SP R IN
TO K BOARD CN1333 3P RED-L :S-MICRO
LR+ LR- LR-
J906 :S-BLOCK
R L YC
J-905 21P :AV2
J-907 21P
J291 I/O-BOARD
JW209 10MM
JW211 5MM
L291 FXC-3A
L292 XC-38
L293 XC-38
Q281 2SC2412K DC DET-1
Q282 2SC2412K DC DET-2
Q283 2A1037K DC DET-3
D905 MTZJ-9.1B PROTECT
D906 MTZJ-9.1B PROTECT
D920 MTZJ-9.1B PROTECT
D923 MTZJ-9.1B PROTECT
D904 MTZJ-9.1B PROTECT
D919 MTZJ-9.1 PROTECT
D916 MTZJ-9.1B PROTECT
V2 IN L2-IN GND R2-OUT C2-OUT GND GND Y IN GND GND V3 OUT V3-IN L3 IN GND GND Y3 OUT C3 OUT
R2 IN L2 OUT GND GND Y2 OUT GND C IN GND GND MODE 3 R3 IN L3 OUT R3 OUT GND GND

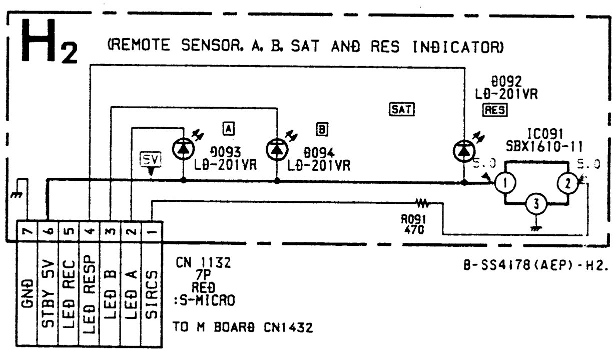
B-SS4145<AEP>-J


F2
(LINE FILTER, RELAY SW)
CN0531 5P
AC IN
NC
NC
NC
AC IN
TO F1 BOARD CN0831
LF661
LF662
C661 0.47 300V :AC
R663 1M 1/2W
C662 0.33 300V :AC
R664
R670
R669
R665 8.2M 1W
JW051
JW052
C664 0.0022 400V
C668 1W 10MM
JW053
THP661
LF663
C672 0.0047 250V F
C673 0.0047 250V F
D663 D4SB60L-F MAIN RECT
265.2
C674
CN0925 6P
AC OUT
NC
NC
300V
NC
PRIM.GND
TO D BOARD CN0525
DGC CHK
DGC CHK
CN0007 2P
JW054
DGC
NC
DGC
TO DGC
CN0005 3P
GND
TO D BOARD CN0529
CN0929 4P
D661 1SS133T HIGH-VOLT PROT
RY661
R666 100 :FPRD
17.3
15.5V
R667 33k
R668 47k
C667 47
D662 DAN202K AT.SW.OFF
Q661 2SC2412K RELAY-SW
CN0924 3P
15.5V
GND
N.C.
TO D BOARD CN0524
8-SS4178<AEP>-F2.

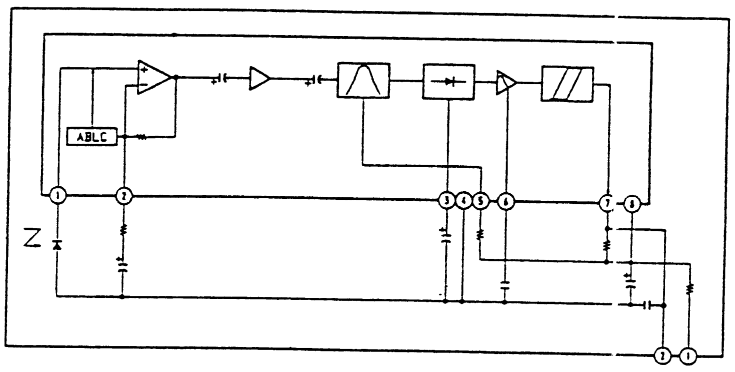
F2 BOARD : ✱ MARK

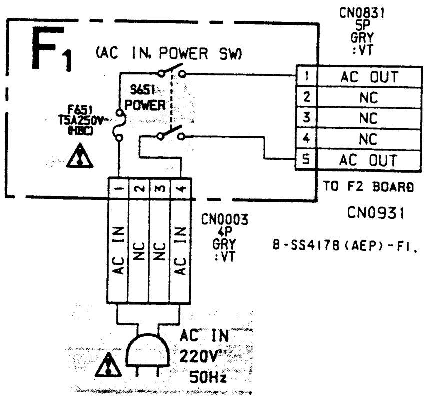
	KV-E2531D/E KV-E2531B/E
⚠ C674	220 400V
JW051	—
JW052	—
⚠ LF661	1-424-391-11
⚠ LF662	1-424-391-11
⚠ R664	1.8 10W
⚠ R669	1.8 10W
⚠ R670	—

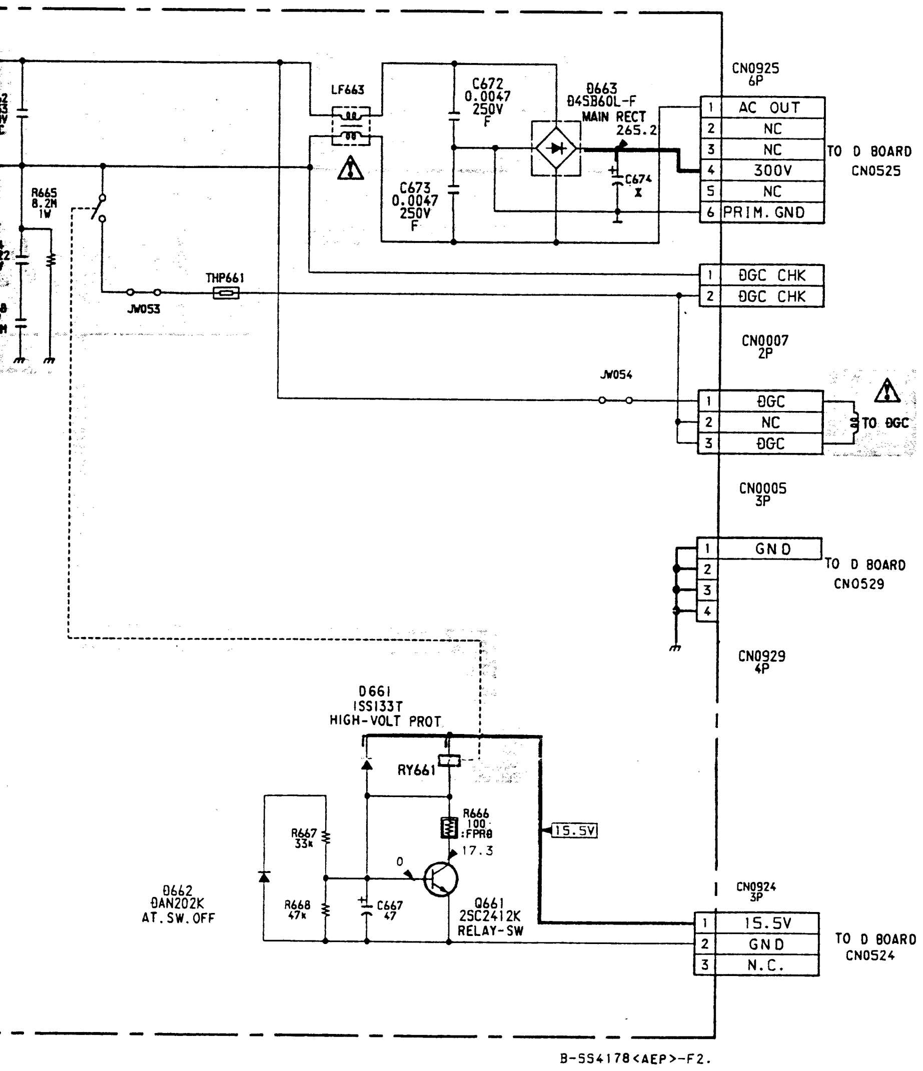

H1
Y/C OUT, VIDEO OUT, AUDIO I/O, A/V SWITCH
MODE
+
−
S081
S082
S083
R081 10k :CHIP
R082 4.7k :CHIP
R083 2.2k :CHIP
C081 100p :3216
C082 100p :3216
R
L
VIDEO
J-81 S-3P Y/C
J-82
HEADPHONES
L081 10μH
L082 10μH
C083 0.022 B:CHIP
C087 0.022 B:CHIP
CN1008 13P YEL :S-MICRO
TO A BOARD CN5108
LC
FR R OUT
GND
FR L OUT
GND
FR V OUT
GND
FR C OUT
GND
FR Y OUT
HP L IN
GND
HP R IN
TO A BOARD CN0108
8-SS4178(AEP)-H1.


H2
(REMOTE SENSOR, A, B, SAT AND RES INDICATOR)
D092 LD-201VR
SAT
RES
A
B
D093 LD-201VR
D094 LD-201VR
5V
IC091 SBX1610-11
R091 470
GND
STBY 5V
LED REC
LED RESP
LED B
LED A
SIRCS
CN1132 7P RED :S-MICRO
TO M BOARD CN1432
8-SS4178(AEP)-H2.

H2 BOARD IC091 SBX1610-11

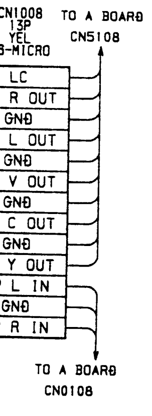


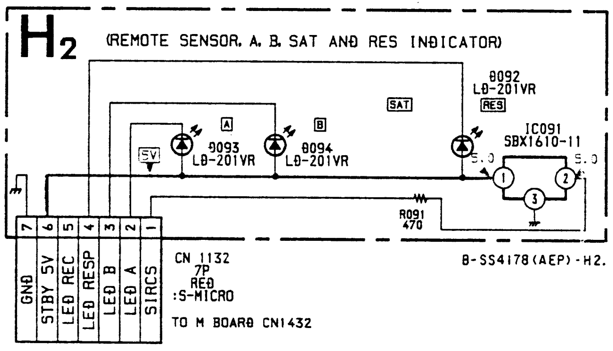

F1
(AC IN, POWER SW)
CN0831 5P GRY :VT
S651 POWER
F651 T5A250V (HBC)
AC OUT
NC
NC
NC
AC OUT
TO F2 BOARD CN0931
CN0003 4P GRY :VT
AC IN
NC
NC
AC IN
AC IN 220V 50Hz
8-SS4178(AEP)-F1.


LF663
C672
0.0047
250V
F
C673
0.0047
250V
F
D663
D4SB60L-F
MAIN RECT
265.2
C674
X
R665
8.2M
1W
THP661
JW053
JW054
CN0925
6P
1 AC OUT
2 NC
3 NC
4 300V
5 NC
6 PRIM. GND
TO D BOARD
CN0525
1 DGC CHK
2 DGC CHK
CN0007
2P
1 DGC
2 NC
3 DGC
TO DGC
CN0005
3P
1 GND
2
3
4
TO D BOARD
CN0529
CN0929
4P
D661
1SS133T
HIGH-VOLT PROT
RY661
R666
100
:FPRD
17.3
15.5V
R667
33k
R668
47k
C667
47
0
D662
DAN202K
AT. SW. OFF
Q661
2SC2412K
RELAY-SW
CN0924
3P
1 15.5V
2 GND
3 N.C.
TO D BOARD
CN0524
B-SS4178<AEP>-F2.

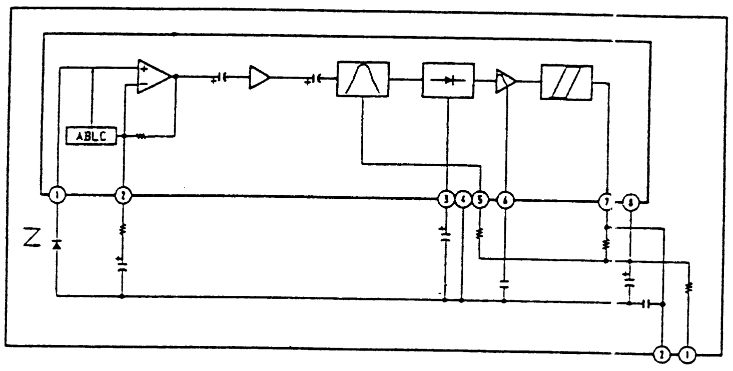
F2 BOARD : ⁑ MARK

	KV-E2531D/E2931D KV-E2531B/E2931B	KV-E3431D KV-E3431B
⚠ C674	220 400V	330 400V
JW051	—	5MM
JW052	—	5MM
⚠ LF661	1-424-391-11	1-424-436-11
⚠ LF662	1-424-391-11	1-424-436-11
⚠ R664	1.8 10W : RB	1.2 10W : RB
⚠ R669	1.8 10W : RB	1.2 10W : RB
⚠ R670	—	1.2 10W : RB


CN1008
13P
YEL
S-MICRO
TO A BOARD
CN5108
LC
R OUT
GND
L OUT
GND
V OUT
GND
C OUT
GND
Y OUT
L IN
GND
R IN
TO A BOARD
CN0108


H2
(REMOTE SENSOR, A, B, SAT AND RES INDICATOR)
D092
LD-201VR
RES
SAT
A
B
D093
LD-201VR
D094
LD-201VR
5V
IC091
SBX1610-11
5.0
5.0
R091
470
7 GND
6 STBY 5V
5 LED REC
4 LED RESP
3 LED B
2 LED A
1 SIRCS
CN 1132
7P
RED
:S-MICRO
TO M BOARD CN1432
B-SS4178(AEP)-H2.

H2 BOARD IC091 SBX1610-11


ABLC
Z
1
2
3
4
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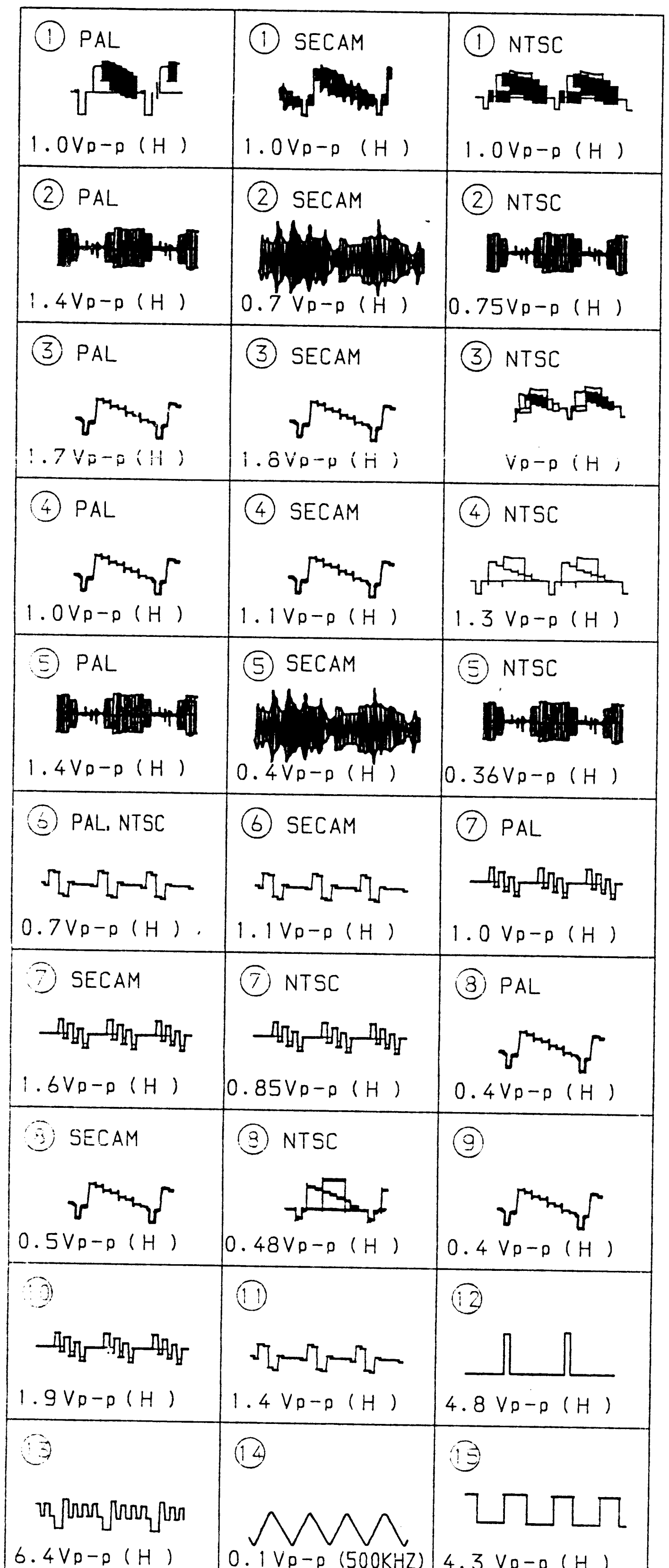
6
7
8

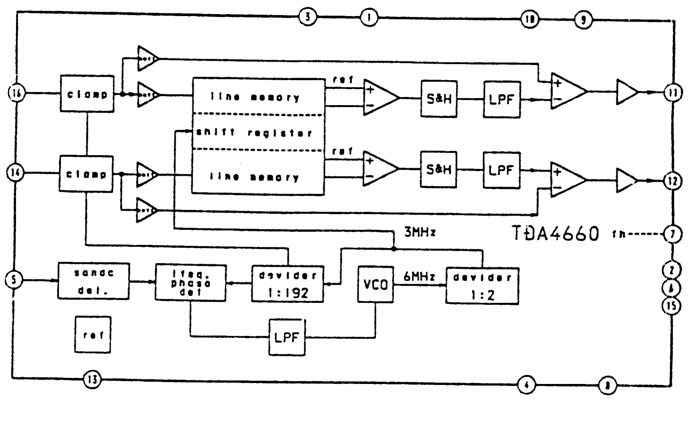
A BOARD : ⁑MARK

	KV-E2531D/E2931D/ E3431D	KV-E2531B/E2931B/ E3431B
C111	—	0.001 : B
IFB101	IFH-389	IFH-389F

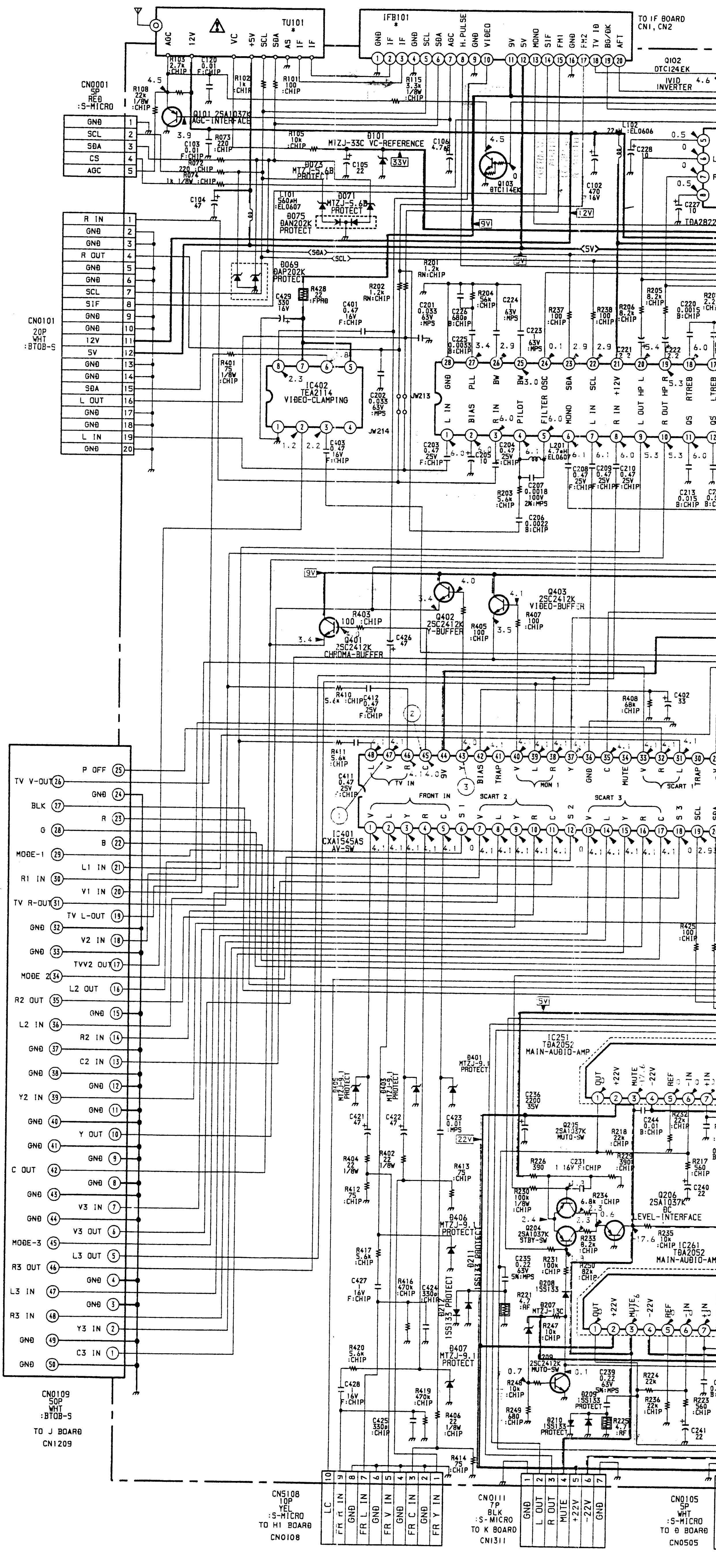
— A Board —



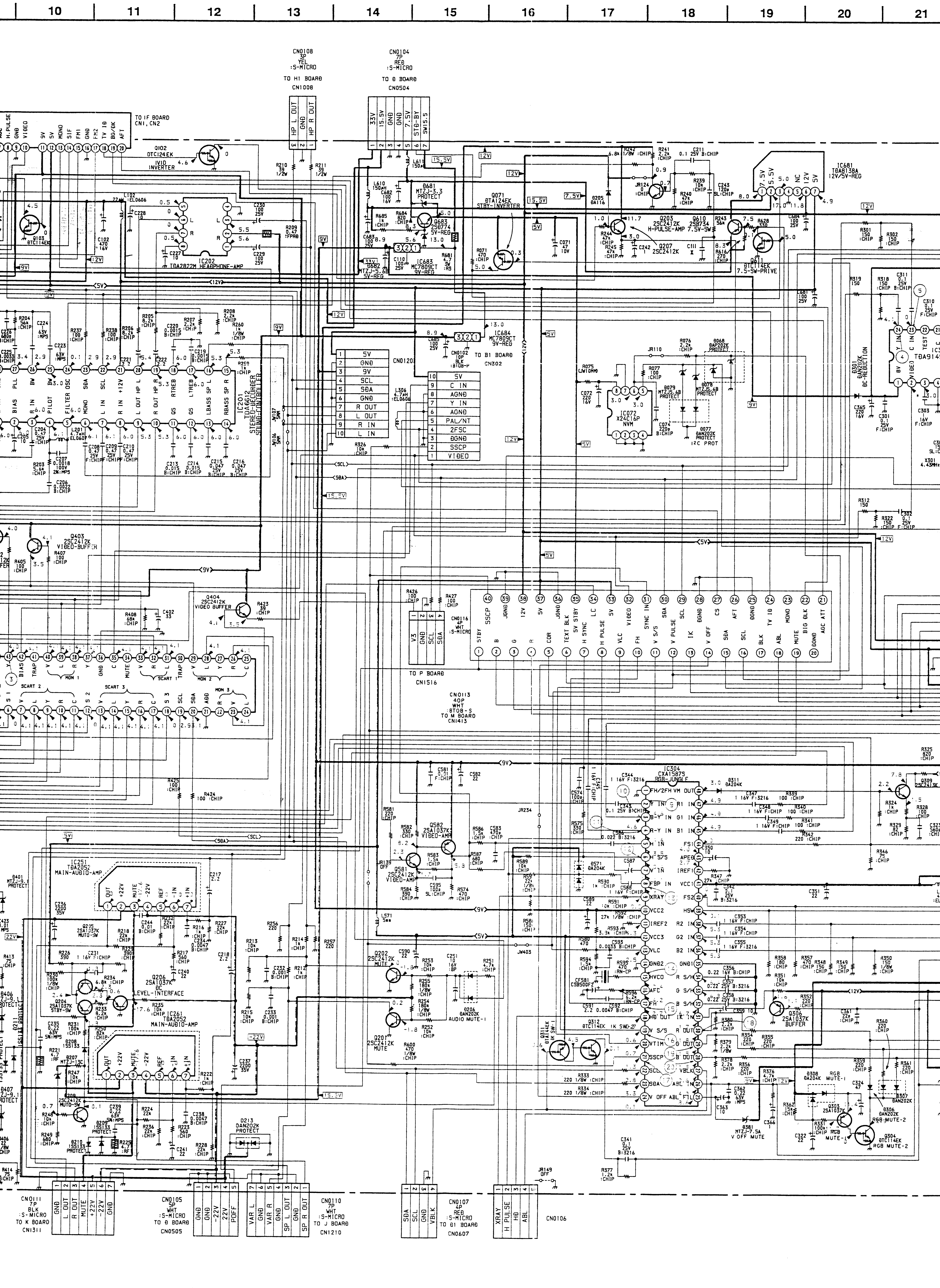
A BOARD IC302 TDA4660V2



clamp
line memory
shift register
line memory
ref
S&H
LPF
3MHz
TDA4660
sandc del.
ifreq. phase det
devider 1:192
VCO
6MHz
devider 1:2
ref
LPF



TU101
IFB101
TO IF BOARD CN1, CN2
Q102 DTC124EK IVID INVERTER
CN0001 5P RED :S-MICRO
GND
SCL
SDA
CS
AGC
Q101 2SA1037K AGC-INTERFACE
D101 MTZJ-33C VC-REFERENCE
Q103 DTC114EK
D073 MTZJ-5.6B PROTECT
D071 MTZJ-5.6B PROTECT
D075 DAN202K PROTECT
D069 DAP202K PROTECT
CN0101 20P WHT :BTOB-S
R IN
R OUT
SIF
12V
5V
SDA
L OUT
L IN
IC402 TEA2114 VIDEO-CLAMPING
IC201 TDA8222
Q403 2SC2412K VIDEO-BUFFER
Q402 2SC2412K Y-BUFFER
Q401 2SC2412K CHROMA-BUFFER
IC401 CXA1545AS AV-SW
FRONT IN
SCART 2
SCART 3
SCART 1
MON 1
CN0109 50P WHT :BTOB-S
TO J BOARD CN1209
P OFF
TV V-OUT
BLK
MODE-1
R1 IN
TV R-OUT
TV L-OUT
V2 IN
TVV2 OUT
MODE 2
L2 OUT
R2 OUT
L2 IN
R2 IN
C2 IN
Y2 IN
Y OUT
C OUT
V3 IN
V3 OUT
MODE-3
L3 OUT
R3 OUT
L3 IN
R3 IN
Y3 IN
C3 IN
IC251 TDA2052 MAIN-AUDIO-AMP
IC261 TDA2052 MAIN-AUDIO-AMP
Q205 2SA1037K MUTO-SW
Q206 2SA1037K DC LEVEL-INTERFACE
Q204 2SA1037K STBY-SW
Q209 2SC2412K MUTO-SW
D401 MTZJ-9.1 PROTECT
D406 MTZJ-9.1 PROTECT
D407 MTZJ-9.1 PROTECT
D207 MTZJ-13C
CN5108 10P YEL :S-MICRO TO H1 BOARD CN0108
CN0111 7P BLK :S-MICRO TO K BOARD CN1311
CN0105 5P WHT :S-MICRO TO B BOARD CN0505

10
11
12
13
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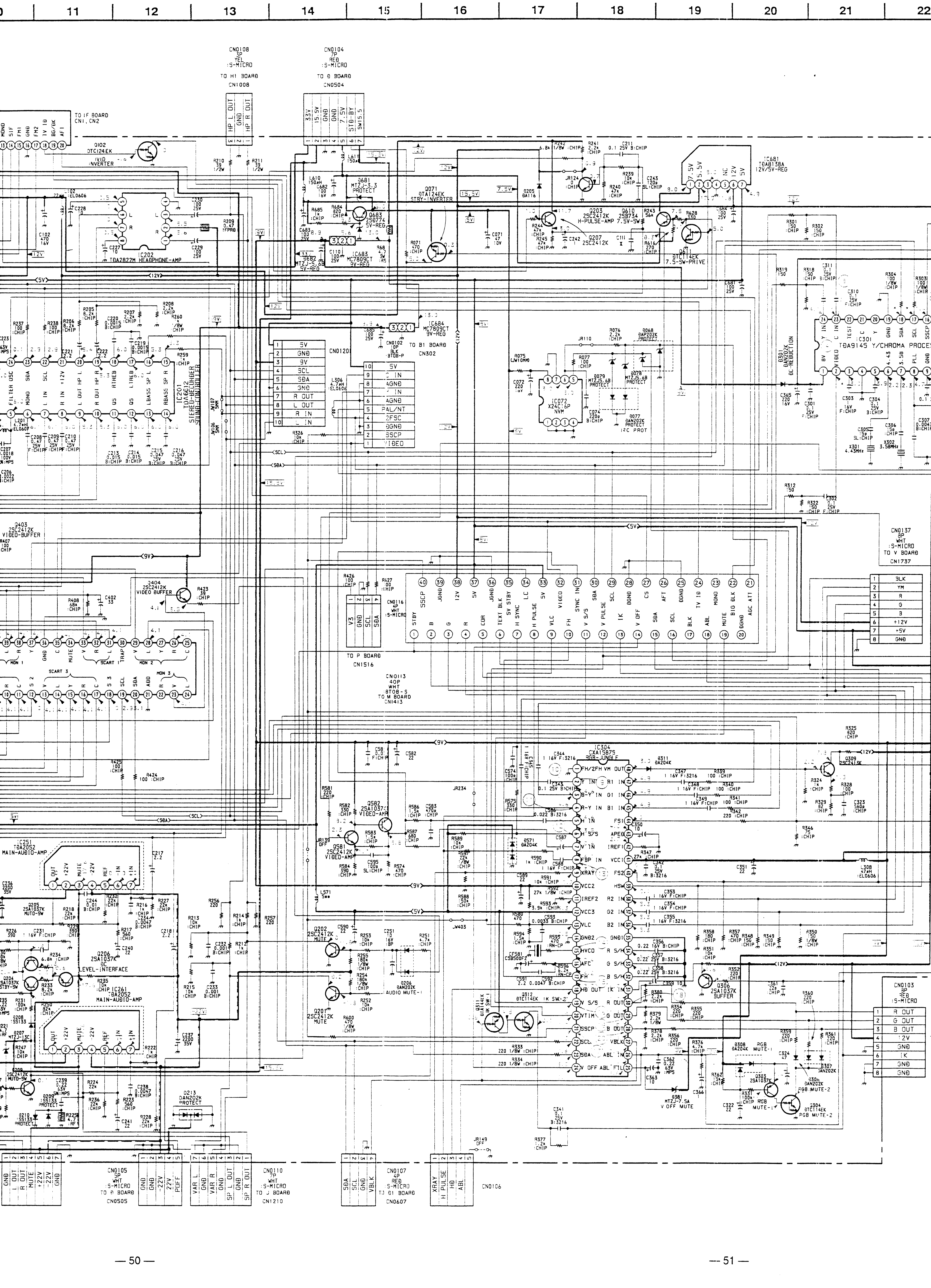
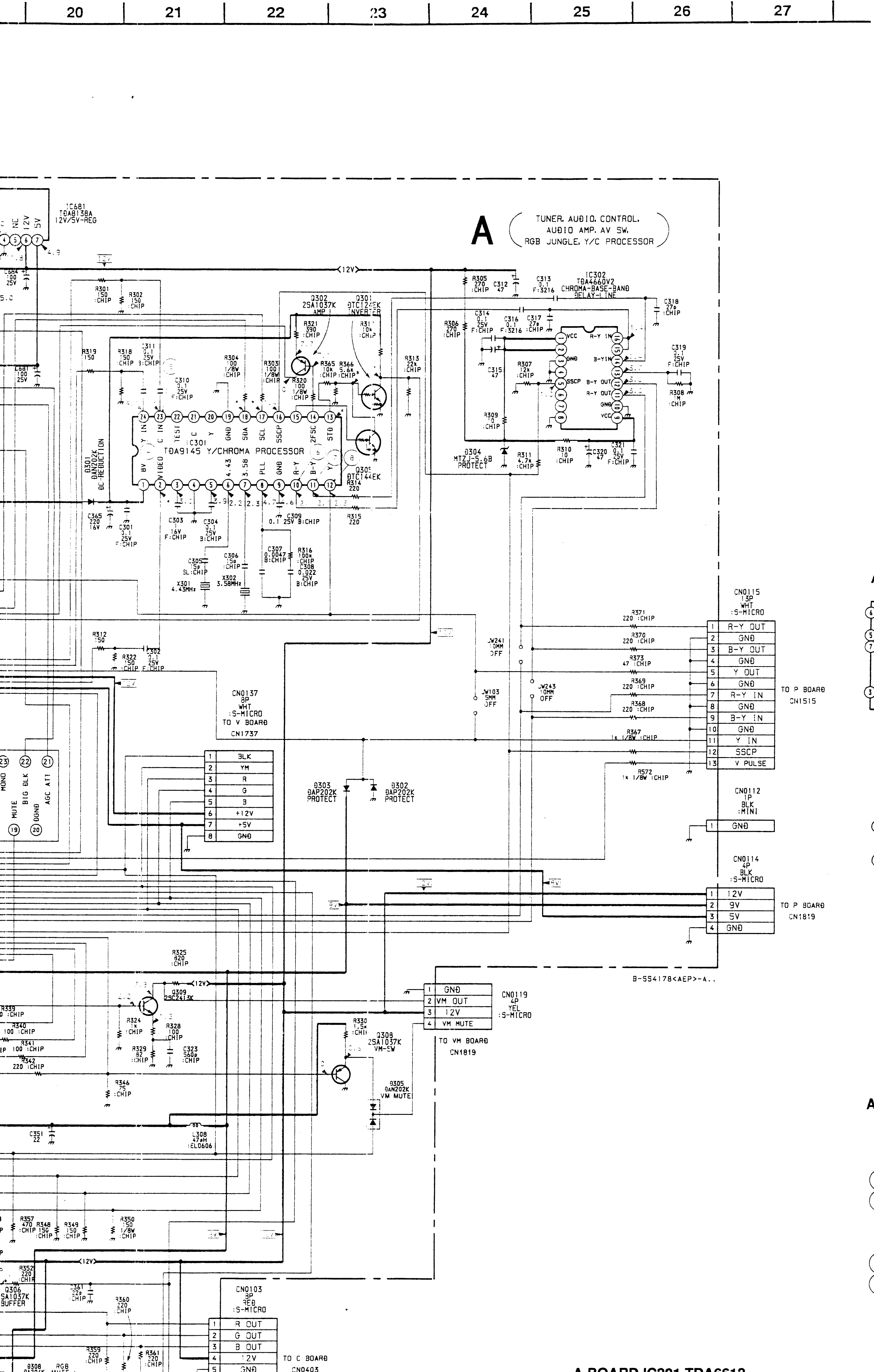
16
17
18
19
20
21
CN0108 3P YEL :S-MICRO TO H1 BOARD CN1008
CN0104 7P RED :S-MICRO TO B BOARD CN0504
HP L OUT
GND
HP R OUT
33V
15.5V
GND
GND
7.5V
STD-BY
SW15.5
TO IF BOARD CN1, CN2
Q102 DTC124EK IVID INVERTER
Q103 DTC114EK
IC202 TDA2822M HEADPHONE-AMP
Q681 MTZJ-3.3 PROTECT
Q683 2SD774 5V-REG
Q682 MTZJ-5.6B 5V-REG
IC683 MC7809CT 9V-REG
Q071 DTA124EK STBY-INVERTER
Q203 2SC2412K H-PULSE-AMP
Q610 2SB734 7.5V-SW
Q207 2SC2412K
Q611 DTC114EK 7.5-SW-DRIVE
IC681 TDA8138A 12V/5V-REG
IC684 MC7809CT 9V-REG
CN0102 10P BLK :B108-P TO B1 BOARD CN302
CN0120
5V
GND
9V
SCL
SDA
GND
R OUT
L OUT
R IN
L IN
5V
C IN
AGND
Y IN
AGND
PAL/NTSC
2FSC
DGND
SSCP
VIDEO
IC201 TDA6612 STEREO-DECODER SOUND-CONTROLLER
IC072 X24C16P NVM
D079 MTZJ5.6B PROTECT
D078 MTZJ5.6B PROTECT
D068 DAP202K PROTECT
D077 DAN202K PROTECT I2C PROT
D301 DAN202K DC-REDUCTION
TDA9141
Q403 2SC2412K VIDEO-BUFFER
Q404 2SC2412K VIDEO BUFFER
SCART 2
SCART 3
MON 1
MON 2
MON 3
CN0116 4P WHT :S-MICRO TO P BOARD CN1516
V3
GND
SCL
SDA
CN0113 40P WHT :B708-S TO M BOARD CN1413
SSCP
DGND
12V
5V
DGND
5V STBY
LC
5V
VIDEO
SYNC IN
SDA
SCL
DGND
CS
AFT
DGND
TV ID
MONO
BIG BLK
AGC ATT
STBY
B
G
R
COR
TEXT BLK
H SYNC
H PULSE
VLC
FH
V S/S
V PULSE
IK
V OFF
SDA
SCL
BLK
ABL
MUTE
DGND
IC304 CXA1587S RGB-JUNGLE
Q582 2SA1037K VIDEO-AMP
Q581 2SC2412K VIDEO-AMP
Q309 2SC2412K
IC251 TDA2052 MAIN-AUDIO-AMP
IC261 TDA2052 MAIN-AUDIO-AMP
Q205 2SA1037K MUTE-SW
Q206 2SA1037K DC LEVEL-INTERFACE
Q204 2SA1037K STBY-SW
Q209 2SC2412K PROTECT
D401 MTZJ-9.1 PROTECT
D406 MTZJ-9.1 PROTECT
D407 MTZJ-9.1 PROTECT
D211 1SS133 PROTECT
D208 1SS133 PROTECT
D209 1SS133 PROTECT
D210 1SS133 PROTECT
D213 DAN202K PROTECT
Q202 2SC2412K MUTE
Q201 2SC2412K MUTE
D206 DAN202K AUDIO MUTE-1
Q311 DTA144EK IK SW-1
Q312 DTC114EK IK SW-2
Q306 2SA1037K BUFFER
D308 DA204K RGB MUTE-1
D306 DAN202K RGB MUTE-2
Q303 2SA1037K RGB MUTE-3
Q304 DTC114EK RGB MUTE-2
D381 MTZJ-7.5A V OFF MUTE
CN0111 7P BLK :S-MICRO TO B BOARD CN1311
GND
L OUT
R OUT
MUTE
+22V
-22V
GND
CN0105 5P WHT :S-MICRO TO B BOARD CN0505
GND
GND
-22V
-22V
POFF
CN0110 7P WHT :S-MICRO TO J BOARD CN1210
VAR L
GND
VAR R
GND
SP L OUT
GND
SP R OUT
CN0107 4P RED :S-MICRO TO B1 BOARD CN0607
SDA
SCL
GND
VBLK
CN0106
XRAY
H PULSE
HD
ABL



11 12 13 14 15 16 17 18 19 20 21 22
CN0108 3P YEL :S-MICRO TO H1 BOARD CN1008
HP L OUT
GND
HP R OUT
CN0104 7P RED :S-MICRO TO B BOARD CN0504
33V
15.5V
GND
GND
7.5V
STD-BY
SW15.5
TO IF BOARD CN1, CN2
Q102 DTC124EK IVID INVERTER
IC202 TDA7822M HEADPHONE-AMP
IC683 MC7809CT 9V-REG
Q683 2SD774 5V-REG
Q681 MTZJ-3.3 PROTECT
Q682 MTZJ-5.6B 5V-REG
Q071 DTA124EK STBY-INVERTER
Q203 2SC2412K H-PULSE-AMP
Q610 2SB734 7.5V-SW
Q207 2SC2412K
Q611 DTC114EK 7.5-SW-DRIVE
IC681 TDA8138A 12V/5V-REG
IC201 TDA9612 STEREO-DECODER SOUND-CONTROLLER
IC684 MC7809CT 9V-REG
CN0102 10P BLK 8T08-P TO B1 BOARD CN302
CN0120
5V
GND
9V
SCL
SDA
GND
R OUT
L OUT
R IN
L IN
5V
C IN
AGND
Y IN
AGND
PAL/NT
2FSC
DGND
SSCP
VIDEO
IC072 X24C16P NVM
D068 DAP202K PROTECT
D079 MTZJ5.6B PROTECT
D078 MTZJ5.6B PROTECT
D077 DAN202K PROTECT I2C PROT
IC301 TDA9145 Y/CHROMA PROCESS
D301 DAN202K DC-REDUCTION
X301 4.43MHz
X302 3.58MHz
Q403 2SC2412K VIDEO-BUFFER
Q404 2SC2412K VIDEO BUFFER
CN0116 4P WHT :S-MICRO TO P BOARD CN1516
V3
GND
SCL
SDA
CN0113 40P WHT 8T08-S TO M BOARD CN1413
STBY B G R COR TEXT BLK H SYNC H PULSE VLC FH V S/S V PULSE IK V OFF SDA SCL BLK ABL MUTE DGND
SSCP JGND 12V 5V JGND 5V STBY LC 5V VIDEO SYNC IN SDA SCL DGND CS AFT DGND TV 1D MONO BIG BLK AGC ATT
CN0137 8P WHT :S-MICRO TO V BOARD CN1737
BLK
YM
R
G
B
+12V
+5V
GND
IC251 TDA2052 MAIN-AUDIO-AMP
IC261 TDA2052 MAIN-AUDIO-AMP
Q205 2SA1037K MUTO-SW
Q206 2SA1037K DC LEVEL-INTERFACE
Q204 2SA1037K STBY-SW
Q209 2SC2412K MUTO-SW
D213 DAN202K PROTECT
Q581 2SC2412K VIDEO-AMP
Q582 2SA1037K VIDEO-AMP
Q202 2SC2412K MUTE
Q201 2SC2412K MUTE
D206 DAN202K AUDIO MUTE-1
IC304 CXA1587S RGB-JUNGLE
Q311 DTC114EK IK SW-1
Q312 DTC114EK IK SW-2
D381 MTZJ-7.5A V OFF MUTE
Q309 2SC2413K
Q306 2SA1037K BUFFER
Q308 DA204K RGB MUTE-1
Q303 2SA1037K
Q304 DTC114EK RGB MUTE-2
D307 DAN202K RGB MUTE-2
CN0103 8P RED :S-MICRO
R OUT
G OUT
B OUT
12V
GND
IK
GND
GND
CN0105 5P WHT :S-MICRO TO J BOARD CN0505
GND
L OUT
R OUT
MUTE
+22V
-22V
GND
GND
GND
-22V
PUFF
CN0110 7P :S-MICRO TO SP BOARD CN1210
VAR L
GND
VAR R
GND
SP L OUT
GND
SP R OUT
CN0107 4P RED :S-MICRO TO B1 BOARD CN0607
SDA
SCL
GND
VBLK
CN0106
XRAY
H PULSE
HD
ABL


20
21
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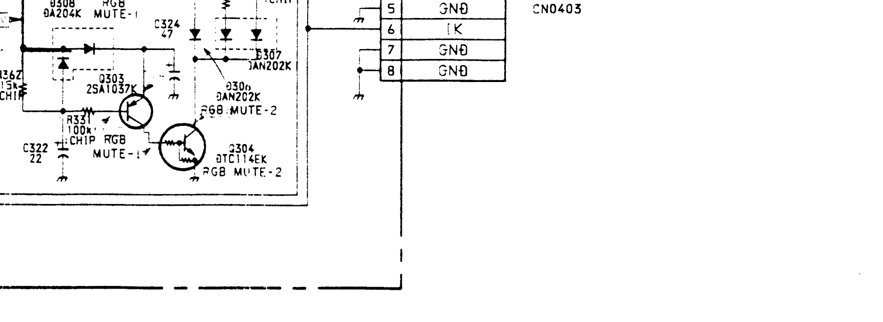
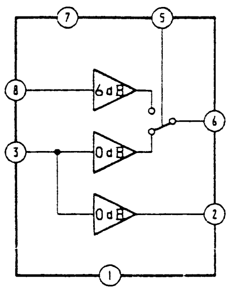
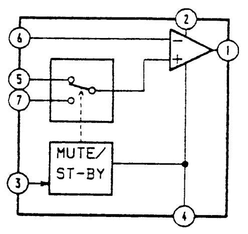
27
A
TUNER, AUDIO, CONTROL, AUDIO AMP, AV SW, RGB JUNGLE, Y/C PROCESSOR
IC681 TDA8138A 12V/5V-REG
IC301 TDA9145 Y/CHROMA PROCESSOR
IC302 TDA4660V2 CHROMA-BASE-BAND DELAY-LINE
Q302 2SA1037K AMP
Q301 DTC124EK INVERTER
Q305 DTC144EK
D301 DAN202K DC-REDUCTION
D304 MTZJ-5.6B PROTECT
D303 DAP202K PROTECT
D302 DAP202K PROTECT
X301 4.43MHz
X302 3.58MHz
CN0115 13P WHT :S-MICRO
1 R-Y OUT
2 GND
3 B-Y OUT
4 GND
5 Y OUT
6 GND
7 R-Y IN
8 GND
9 B-Y IN
10 GND
11 Y IN
12 SSCP
13 V PULSE
TO P BOARD CN1515
CN0137 8P WHT :S-MICRO TO V BOARD CN1737
1 BLK
2 YM
3 R
4 G
5 B
6 +12V
7 +5V
8 GND
CN0112 1P BLK :MINI
1 GND
CN0114 4P BLK :S-MICRO
1 12V
2 9V
3 5V
4 GND
TO P BOARD CN1819
CN0119 4P YEL :S-MICRO
1 GND
2 VM OUT
3 12V
4 VM MUTE
TO VM BOARD CN1819
Q308 2SA1037K VM-SW
D305 DAN202K VM MUTE
2SC2413K
L308 47μH :EL0606
JW241 OHM OFF
JW103 5MM OFF
JW243 OHM OFF
B-SS4178<AEP>-A..
<12V>


CN0103 8P RED :S-MICRO
1 R OUT
2 G OUT
3 B OUT
4 12V
5 GND
6 YK
7 GND
8 GND
TO C BOARD CN0403
Q306 2SA1037K BUFFER
Q303 2SA1037K RGB MUTE-1
Q304 DTC114EK RGB MUTE-2
D308 DA204K RGB MUTE-1
D307 DAN202K
D30n DAN202K RGB MUTE-2
<12V>

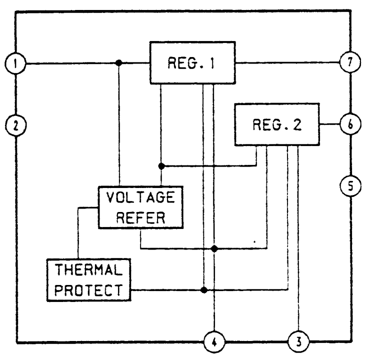
A BOARD IC402 TEA2114


7
5
8
6dB
6
3
0dB
0dB
2
1

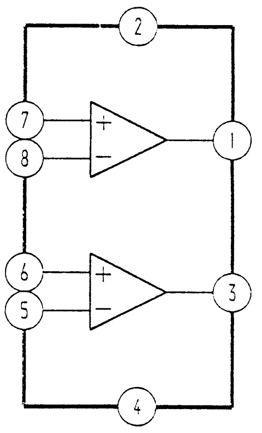
A BOARD IC251/ 261 TDA2052


2
6
1
5
7
MUTE/ ST-BY
3
4

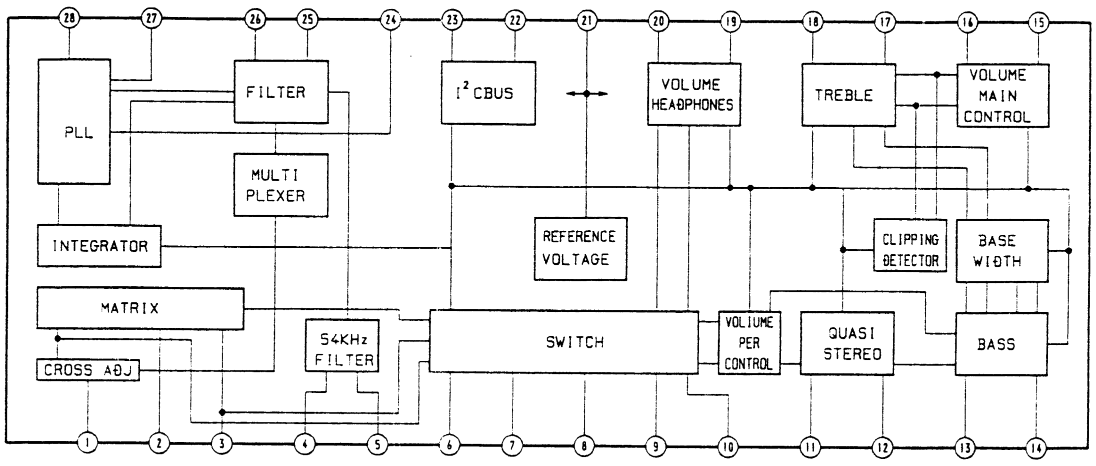
A BOARD IC681 TDA8138A


1
REG. 1
7
2
REG. 2
6
5
VOLTAGE REFER
THERMAL PROTECT
4
3

A BOARD IC202 TDA2822M



A BOARD IC201 TDA6612


28
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18
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16
15
PLL
FILTER
MULTI PLEXER
I²CBUS
VOLUME HEADPHONES
TREBLE
VOLUME MAIN CONTROL
INTEGRATOR
REFERENCE VOLTAGE
CLIPPING DETECTOR
BASE WIDTH
MATRIX
54KHz FILTER
SWITCH
VOLUME PER CONTROL
QUASI STEREO
BASS
CROSS ADJ
1
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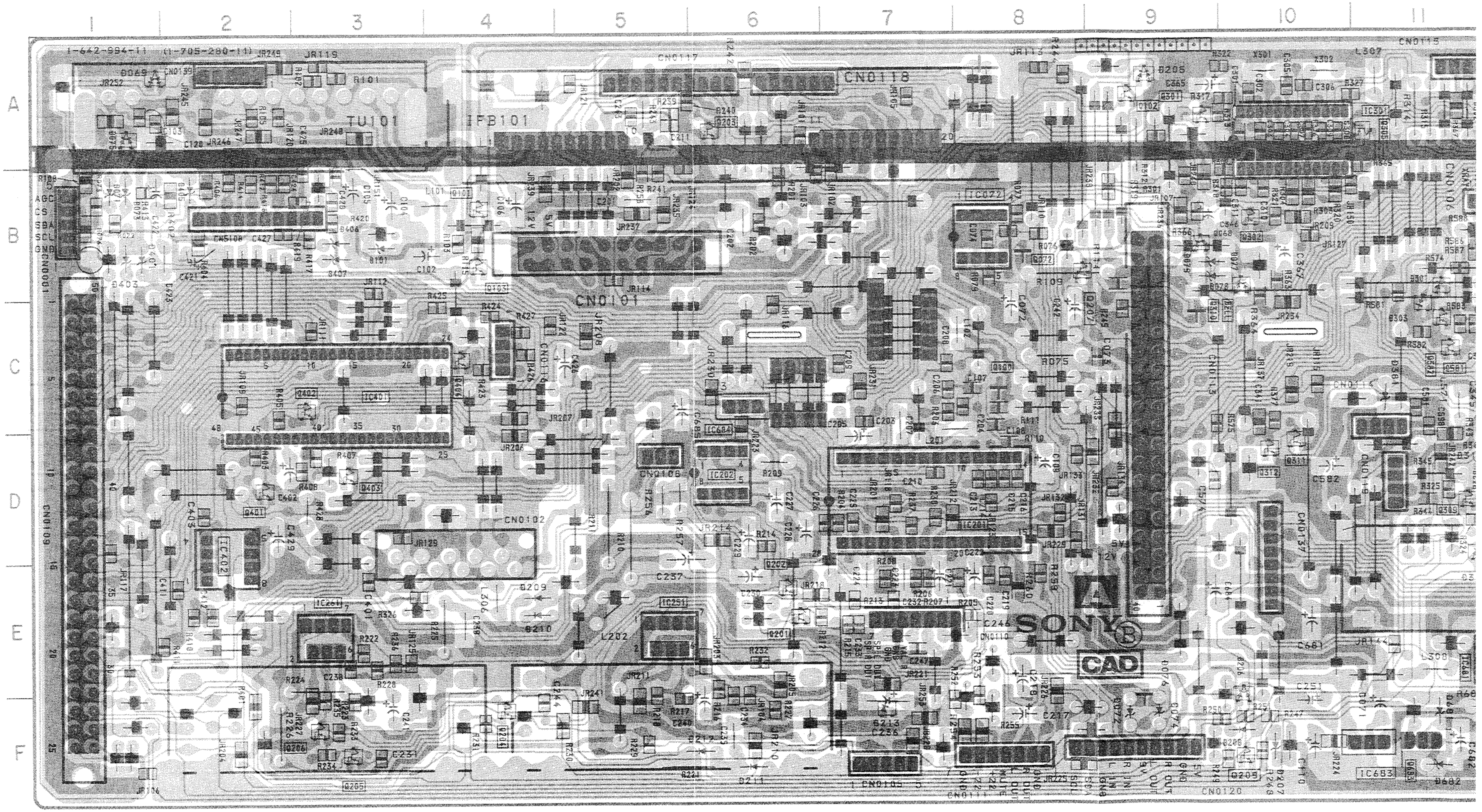
14

A [A/V PROCESSOR, Y/C JUNGLE, RGB OUTPUT, A/V SWITCH]

— A Board —


1
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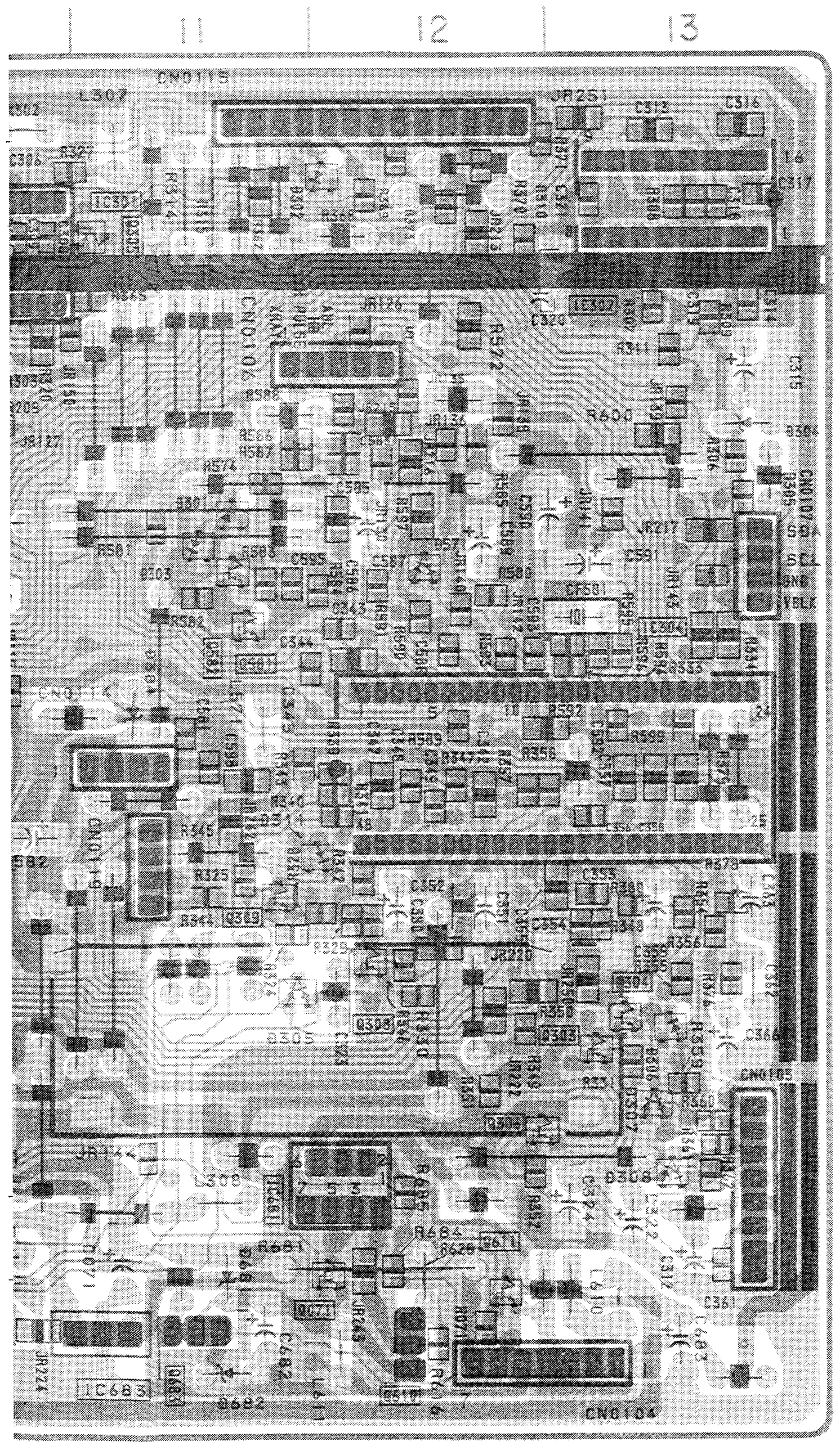
6
7
8
9
10
11
A
B
C
D
E
F
1-642-994-11 (1-705-280-11)
TU101
IFB101
CN0118
CN0117
CN0101
CN0102
CN0109
CN0001
AGC
CS
SBA
SCL
GND
IC401
IC402
IC201
IC202
IC251
IC261
IC683
SONY
CAD
CN0105
CN0111
CN0120
5V
12V

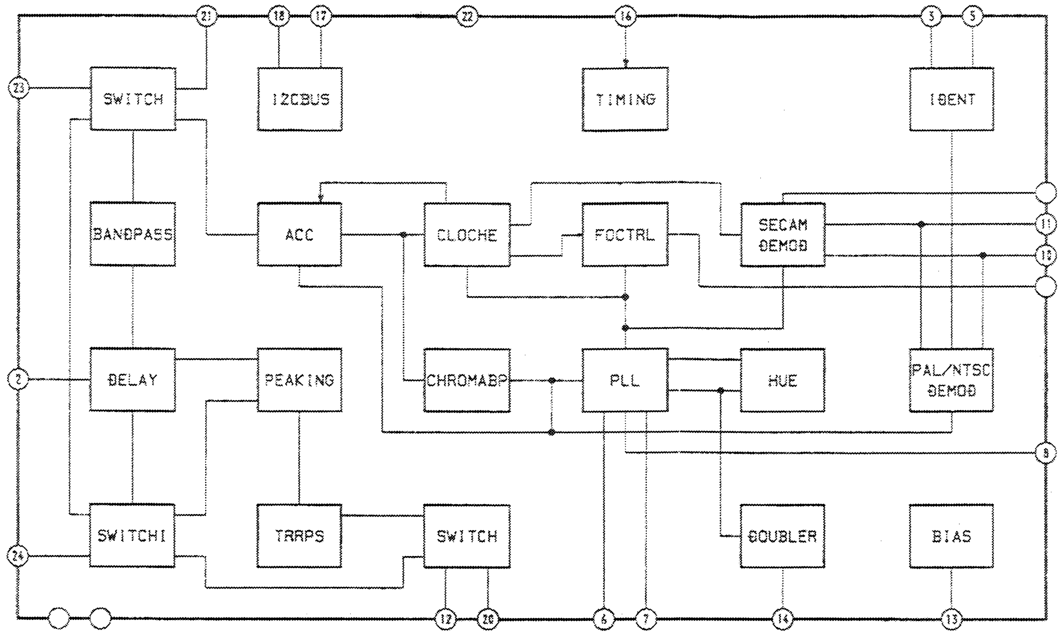

11
12
13
CN0115
L307
JR251
C312
C316
IC301
IC302
C317
R314
CN0106
JR126
C320
R600
R311
C315
IC304
CF581
C591
C595
C586
C587
R581
C581
CN0114
C561
C345
C353
C352
C354
C351
CN0116
C356
R345
Q309
R325
R329
JR220
Q308
JR144
L508
IC681
R681
R684
Q681
C524
C682
C683
C361
CN0103
CN0104
IC683
R682
JR224
L610
C366

— A Board —

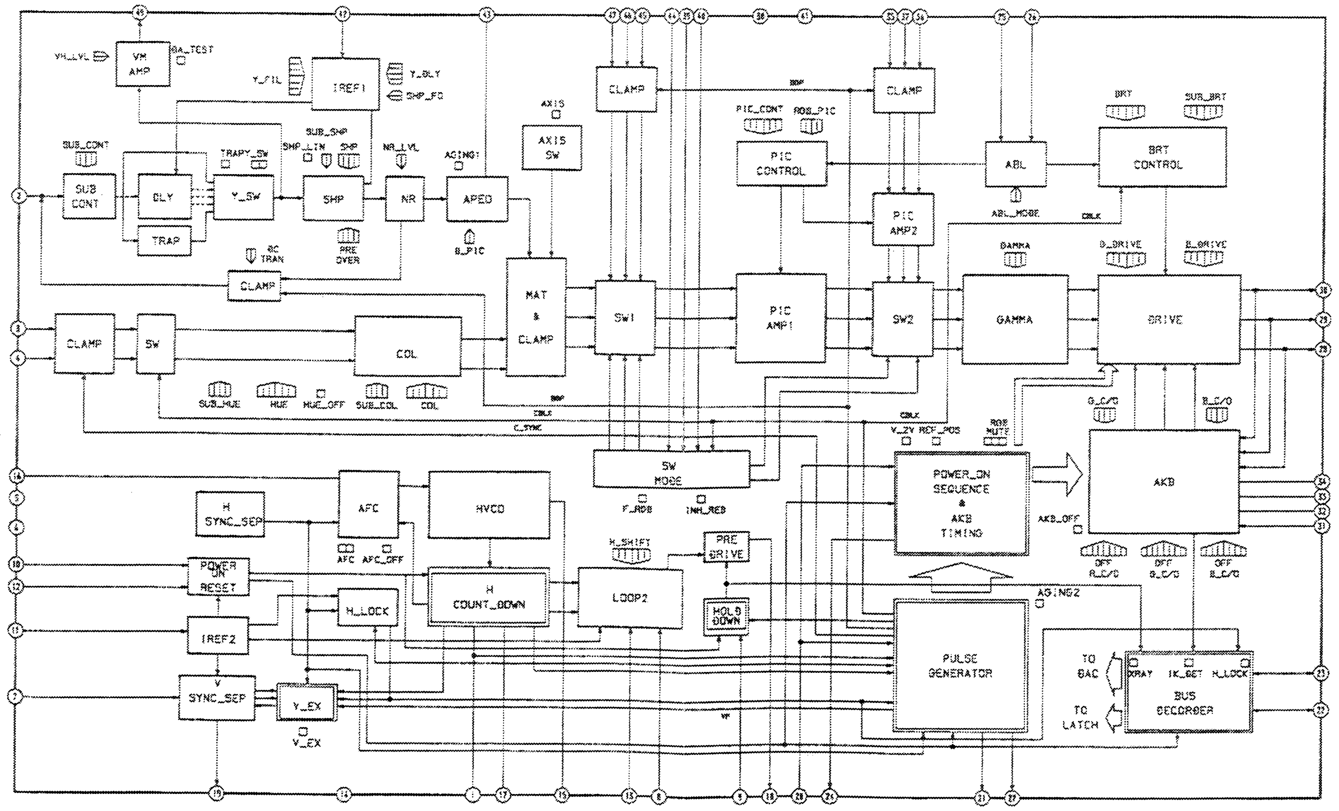
IC	
IC072	B-8
IC201	D-7
IC202	D-6
IC251	E-5
IC261	E-3
IC301	A-10
IC302	A-13
IC304	C-12
IC401	C-3
IC402	D-2
IC681	E-12
IC683	F-11
IC684	C-6
TRANSISTOR	
Q701	F-12
Q101	B-4
Q102	A-9
Q102	B-4
Q201	E-6
Q202	E-6
Q203	A-6
Q204	F-4
Q205	F-3
Q206	F-3
Q207	C-9
Q208	F-10
Q209	A-9
Q301	A-10
Q302	E-13
Q303	E-13
Q304	E-12
Q306	D-12
Q308	D-11
Q309	D-10
Q311	D-10
Q312	D-2
Q401	C-3
Q402	D-3
Q403	C-4
Q404	C-11
Q581	C-11
Q610	F-12
Q611	F-12
Q683	F-11
DIODE	
D068	B-9
D069	A-1
D071	B-1
D073	B-1
D075	A-1
D077	B-10
D078	B-9
D079	B-9
D101	B-3
D205	A-9
D206	E-10
D207	F-10
D208	F-10
D209	E-4
D210	E-4
D211	F-6
D212	F-6
D213	F-7
D301	B-11
D302	A-12
D303	C-11
D304	B-13
D305	D-11
D306	E-13
D307	E-13
D308	E-13
D311	D-11
D381	C-11
D401	B-1
D403	B-1
D405	B-2
D406	B-3
D407	B-3
D571	C-12
D681	F-11
D682	F-11

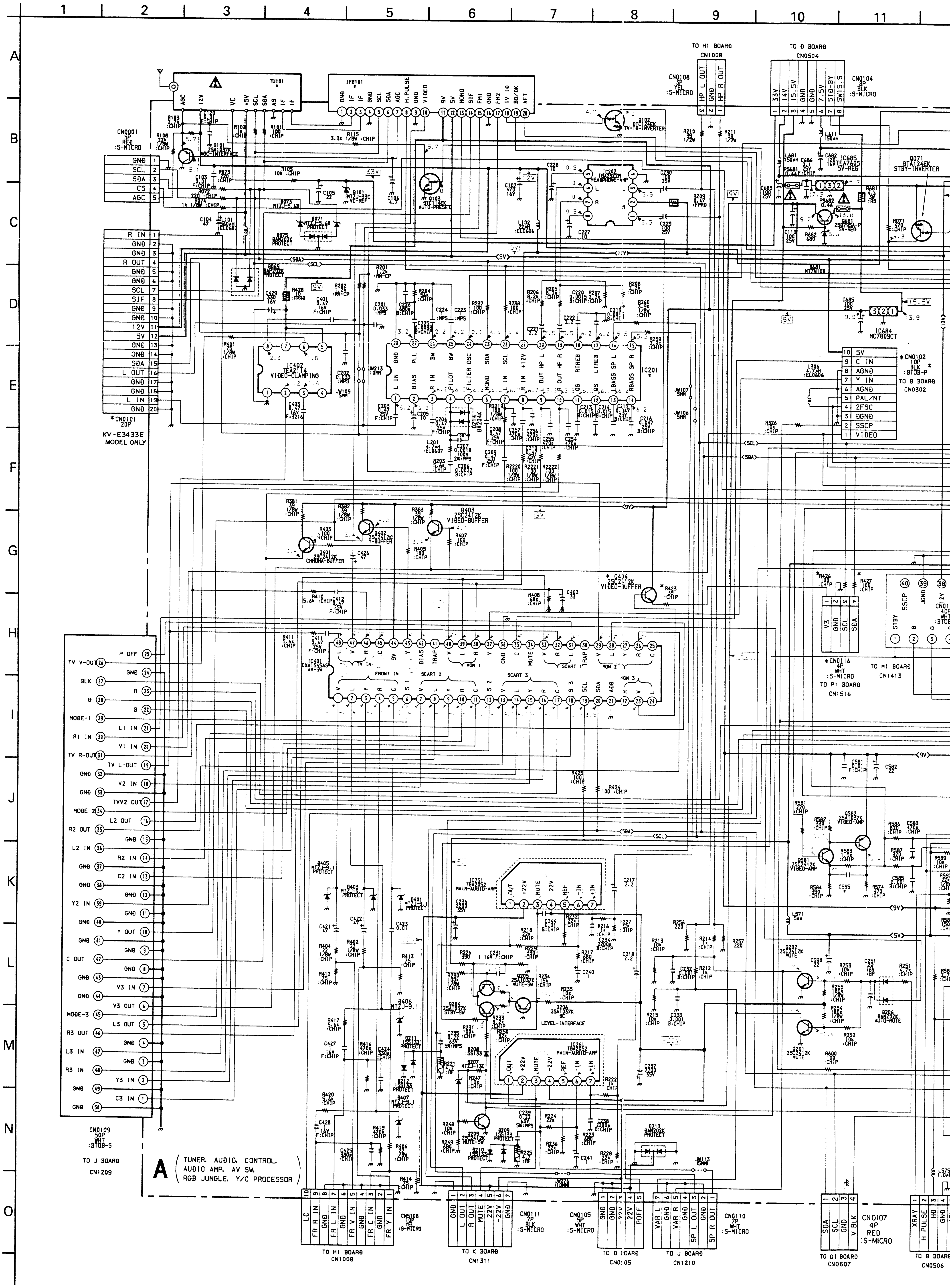
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

A BOARD IC301 TDA9145

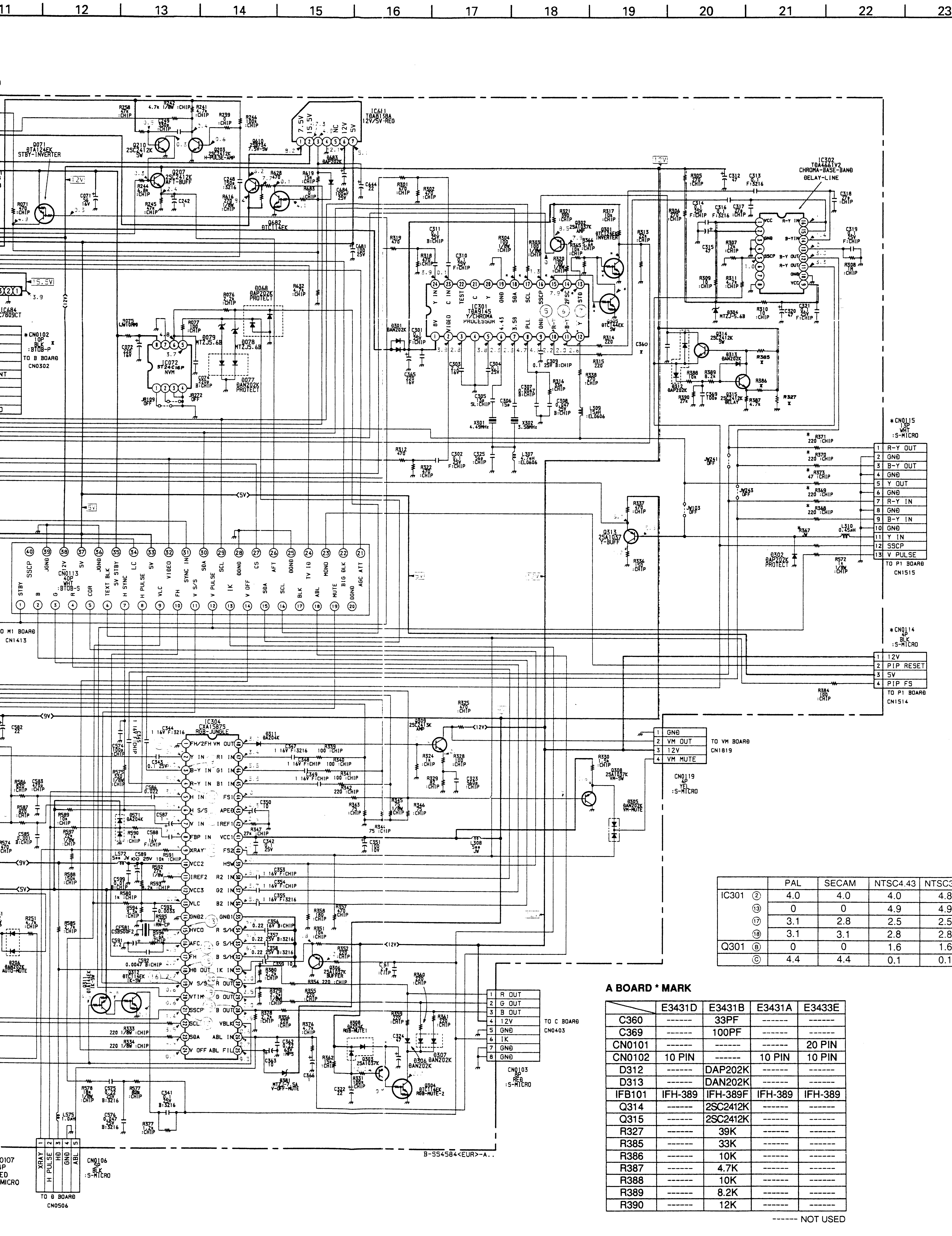

SWITCH
I2CBUS
TIMING
IDENT
BANDPASS
ACC
CLOCHE
FCCTRL
SECAM DEMOD
DELAY
PEAKING
CHROMABP
PLL
HUE
PAL/NTSC DEMOD
SWITCHI
TRAPS
SWITCH
DOUBLER
BIAS
21
18
17
22
16
3
5
23
11
12
2
8
24
12
20
6
7
14
13

A BOARD IC304 CXA1587S


VM AMP
IREF1
CLAMP
AXIS SW
PIC CONTROL
ABL
BRT CONTROL
SUB CONT
DLY
Y_SW
SHP
NR
APED
TRAP
PIC AMP2
CLAMP
MAT & CLAMP
SW1
PIC AMP1
SW2
GAMMA
DRIVE
CLAMP
SW
COL
SW MODE
POWER_ON SEQUENCE & AKB TIMING
AKB
H SYNC_SEP
AFC
HVCO
POWER ON RESET
H_LOCK
H COUNT_DOWN
LOOP2
PRE DRIVE
HOLD DOWN
IREF2
PULSE GENERATOR
BUS DECODER
V SYNC_SEP
V_EX
TO DAC
TO LATCH


TU101
IFB101
AGC
12V
VC
+5V
SCL
SDA
AS
IF
H.PULSE
VIDEO
MONO
SIF
FM1
FM2
TV IO
BO/BK
AFT
CN0001
5P
RED
:S-MICRO
GND
SCL
SDA
CS
AGC
TO H1 BOARD
CN1008
CN0108
3P
YEL
:S-MICRO
HP L OUT
GND
HP R OUT
TO D BOARD
CN0504
33V
14V
15.5V
GND
7.5V
STD-BY
SW15.5
CN0104
8P
BLK
:S-MICRO
Q102
DTC124EK
TV-IB-INVERTER
Q101
2SA1037K
AGC-INTERFACE
Q103
DTC114EK
AUTO-PRESET
D101
MTZJ-33C
VC-REF
IC202
TA7272M
HEADPHONE-AMP
IC685
TEA7605
5V-REG
Q071
DTA124EK
STBY-INVERTER
Q681
2SD756A-P
5V-REG
IC684
MC7809CT
D071
MTZJ-5.6B
PROTECT
D075
BA202K
PROTECT
D401
BA202K
PROTECT
R IN
GND
R OUT
SCL
SIF
12V
5V
SDA
L OUT
L IN
*CN0101
20P
KV-E3433E
MODEL ONLY
IC402
TEA2114
VIDEO-CLAMPING
IC201
TDA9860
GND
PLL
BW
PILOT
FILTER OSC
MONO
SDA
SCL
+12V
OUT HP L
OUT HP R
RTREB
LTREB
BASS SP L
BASS SP R
RBASS
L IN
BIAS
*CN0102
10P
BLK
:BTOB-P
TO B BOARD
CN0302
5V
C IN
AGND
Y IN
PAL/NT
2FSC
DGND
SSCP
VIDEO
Q401
2SC2412K
CHROMA-BUFFER
Q402
2SC2412K
Y-BUFFER
Q403
2SC2412K
VIDEO-BUFFER
*Q414
2SC2412K
VIDEO-BUFFER
IC401
CXA1545AS
AV-SW
TV IN
FRONT IN
SCART 2
SCART 3
SCART 1
MON 1
MON 2
MON 3
MUTE
TRAP
*CN0116
4P
WHT
:S-MICRO
TO P1 BOARD
CN1516
V3
GND
SCL
SDA
TO M1 BOARD
CN1413
STBY
SSCP
P OFF
TV V-OUT
BLK
MODE-1
R1 IN
L1 IN
V1 IN
TV R-OUT
TV L-OUT
V2 IN
TVV2 OUT
MODE 2
L2 OUT
R2 OUT
L2 IN
R2 IN
C2 IN
Y2 IN
Y OUT
C OUT
V3 IN
V3 OUT
MODE-3
L3 OUT
R3 OUT
L3 IN
R3 IN
Y3 IN
C3 IN
CN0109
50P
WHT
:BTOB-S
TO J BOARD
CN1209
Q581
2SC2412K
VIDEO-AMP
Q582
2SA1037K
VIDEO-AMP
D405
MTZJ-9.1
PROTECT
D403
MTZJ-9.1
PROTECT
D401
MTZJ-9.1
PROTECT
D406
MTZJ-9.1
IC251
TDA7052
MAIN-AUDIO-AMP
IC261
TDA7052
MAIN-AUDIO-AMP
OUT
+22V
MUTE
-22V
REF
-IN
+IN
Q205
2SA1037K
MUTE-SW
Q204
2SA1037K
STBY-SW
Q206
2SA1037K
LEVEL-INTERFACE
Q209
2SC2412K
MUTE-SW
D211
1SS133
PROTECT
D212
1SS133
PROTECT
D407
MTZJ-9.1
PROTECT
D208
1SS133
D207
MTZJ-13C
D210
1SS133
PROTECT
D213
BA202K
PROTECT
Q202
2SC2412K
MUTE
Q201
2SC2412K
MUTE
D206
BA202K
AUTO-MUTE
LC
FR R IN
GND
FR L IN
FR V IN
FR C IN
FR Y IN
CN5108
10P
YEL
:S-MICRO
TO H1 BOARD
CN1008
L OUT
R OUT
22V
CN0111
7P
BLK
:S-MICRO
TO K BOARD
CN1311
CN0105
5P
WHT
:S-MICRO
-22V
POFF
TO D BOARD
CN0105
VAR L
VAR R
SP L OUT
SP R OUT
CN0110
7P
WHT
:S-MICRO
TO J BOARD
CN1210
V BLK
CN0107
4P
RED
:S-MICRO
TO D1 BOARD
CN0607
XRAY
H PULSE
HD
TO B BOARD
CN0506

A (TUNER, AUDIO, CONTROL, AUDIO AMP, AV SW, RGB JUNGLE, Y/C PROCESSOR)


11
12
13
14
15
16
17
18
19
20
21
22
23
IC611 TDA8158A 12V/5V-REG
Q071 DTA124EK STBY-INVERTER
Q210 2SC2412K SW
Q207 2SC2412K AFT-BUFF
Q682 DTC114EK
IC302 TDA4661V2 CHROMA-BASE-BAND DELAY-LINE
IC301 TDA9145 Y/CHROMA PROCESSOR
IC072 ST24C16P NVM
IC684
*CN0102 10P BLK :BTOB-P
TO B BOARD CN0302
CN0113 40P WHT :BTOB-S
TO M1 BOARD CN1413
*CN0115 13P WHT :S-MICRO
R-Y OUT
GND
B-Y OUT
Y OUT
R-Y IN
B-Y IN
Y IN
SSCP
V PULSE
TO P1 BOARD CN1515
*CN0114 4P BLK :S-MICRO
12V
PIP RESET
5V
PIP FS
TO P1 BOARD CN1514
Q313 2SA1037 Y-BUFF
Q302 DAP202K PROTECT
IC304 CXA1587S RGB-JUNGLE
GND
VM OUT
12V
VM MUTE
TO VM BOARD CN1819
CN0119 4P YEL :S-MICRO
R OUT
G OUT
B OUT
IK
TO C BOARD CN0403
CN0103 8P RED :S-MICRO
XRAY
H PULSE
HD
GND
ABL
CN0106 5P BLK :S-MICRO
TO B BOARD CN0506
B-SS4584<EUR>-A..

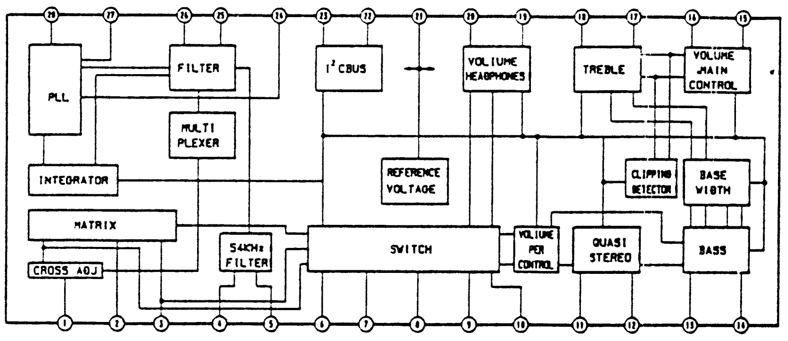
		PAL	SECAM	NTSC4.43	NTSC3
IC301	②	4.0	4.0	4.0	4.8
	⑬	0	0	4.9	4.9
	⑰	3.1	2.8	2.5	2.5
	⑱	3.1	3.1	2.8	2.8
Q301	Ⓑ	0	0	1.6	1.6
	Ⓒ	4.4	4.4	0.1	0.1

A BOARD * MARK

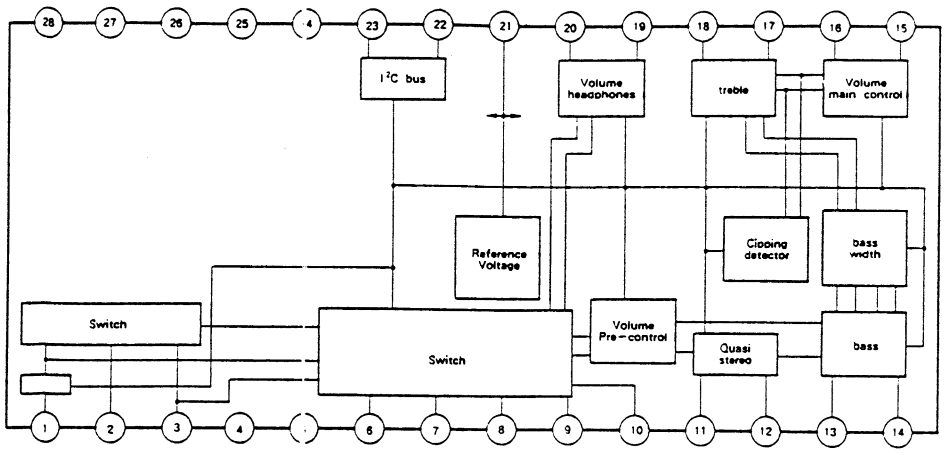
	E3431D	E3431B	E3431A	E3433E
C360	------	33PF	------	------
C369	------	100PF	------	------
CN0101	------	------	------	20 PIN
CN0102	10 PIN	------	10 PIN	10 PIN
D312	------	DAP202K	------	------
D313	------	DAN202K	------	------
IFB101	IFH-389	IFH-389F	IFH-389	IFH-389
Q314	------	2SC2412K	------	------
Q315	------	2SC2412K	------	------
R327	------	39K	------	------
R385	------	33K	------	------
R386	------	10K	------	------
R387	------	4.7K	------	------
R388	------	10K	------	------
R389	------	8.2K	------	------
R390	------	12K	------	------

------ NOT USED

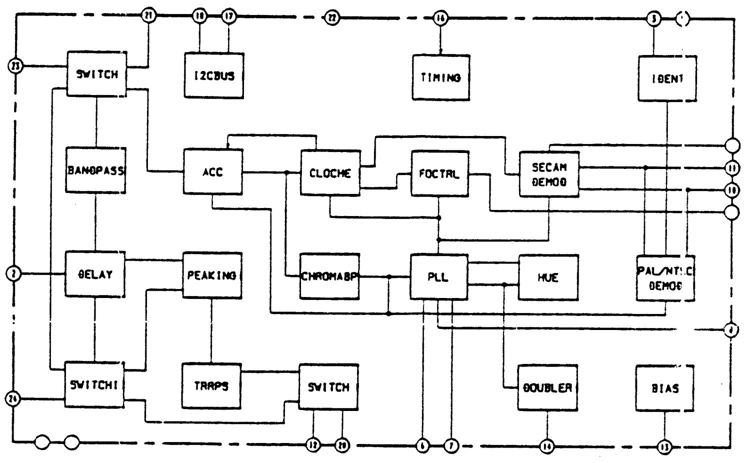
A BOARD IC201 TDA6612


PLL
FILTER
MULTI PLEXER
INTEGRATOR
MATRIX
CROSS ADJ
54KHz FILTER
I²C BUS
VOLUME HEADPHONES
REFERENCE VOLTAGE
SWITCH
VOLUME PERI CONTROL
QUASI STEREO
TREBLE
VOLUME MAIN CONTROL
CLIPPING DETECTOR
BASE WIDTH
BASS

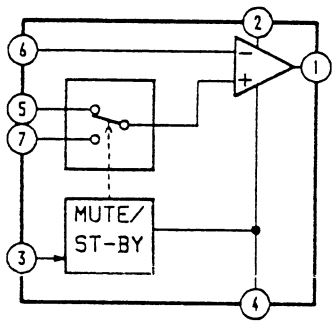
A BOARD IC201 TDA6622 (UK Model only)


I²C bus
Volume headphones
treble
Volume main control
Reference Voltage
Clipping detector
bass width
Switch
Switch
Volume Pre-control
Quasi stereo
bass

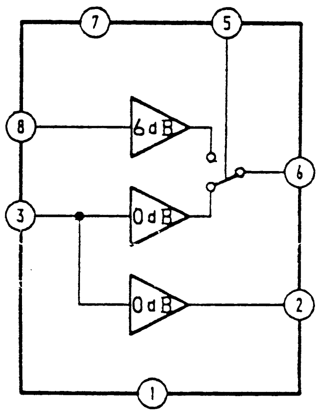
A BOARD IC301 TDA9145


SWITCH
I2CBUS
TIMING
IDENT
BANDPASS
ACC
CLOCHE
FOCTRL
SECAM DEMOD
DELAY
PEAKING
CHROMABP
PLL
HUE
PAL/NTSC DEMOD
SWITCHI
TRAPS
SWITCH
DOUBLER
BIAS

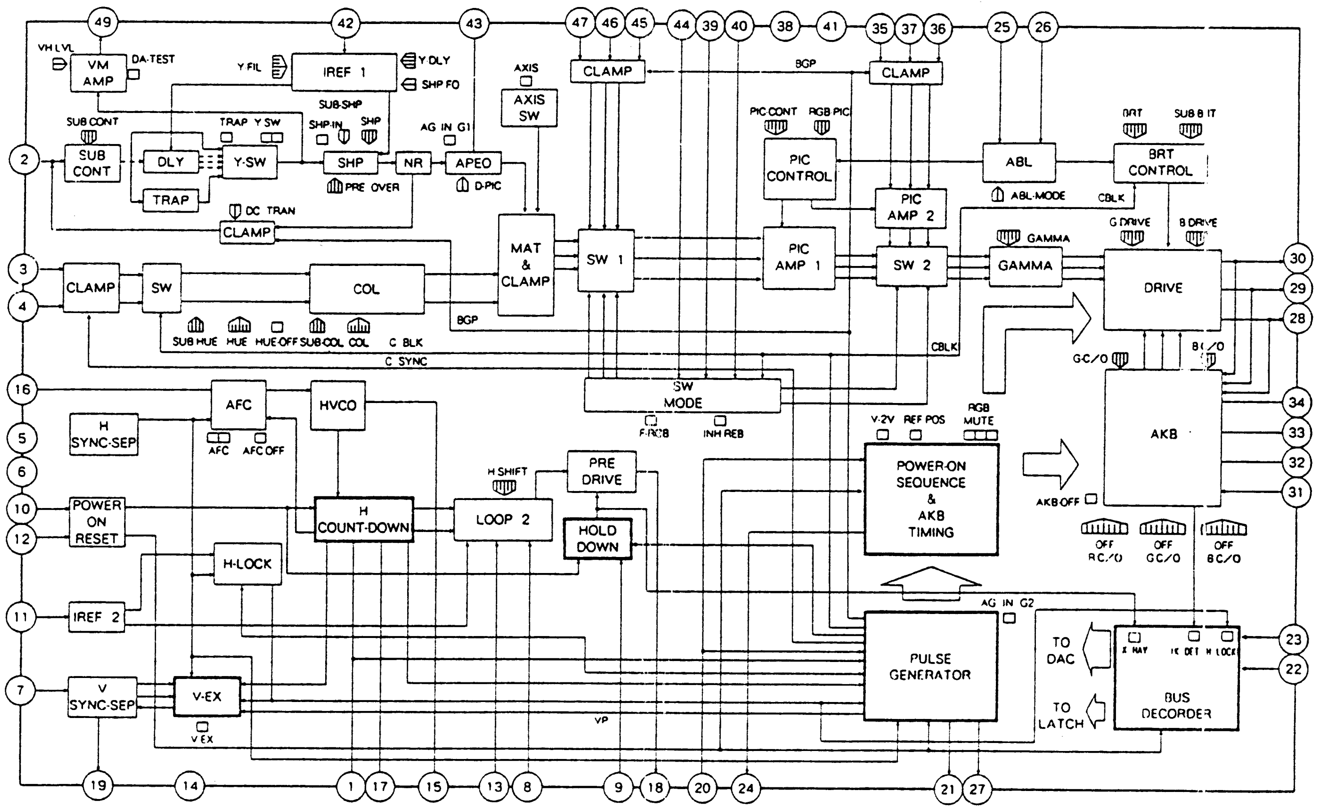
A BOARD IC251, IC261 TDA2052



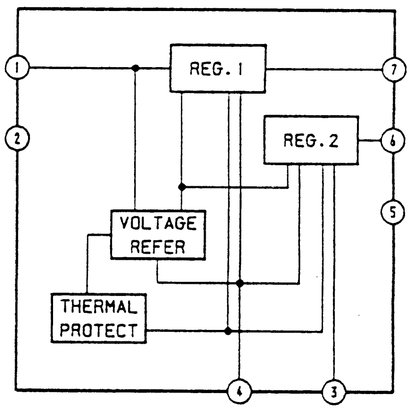
A BOARD IC402 TEA2114



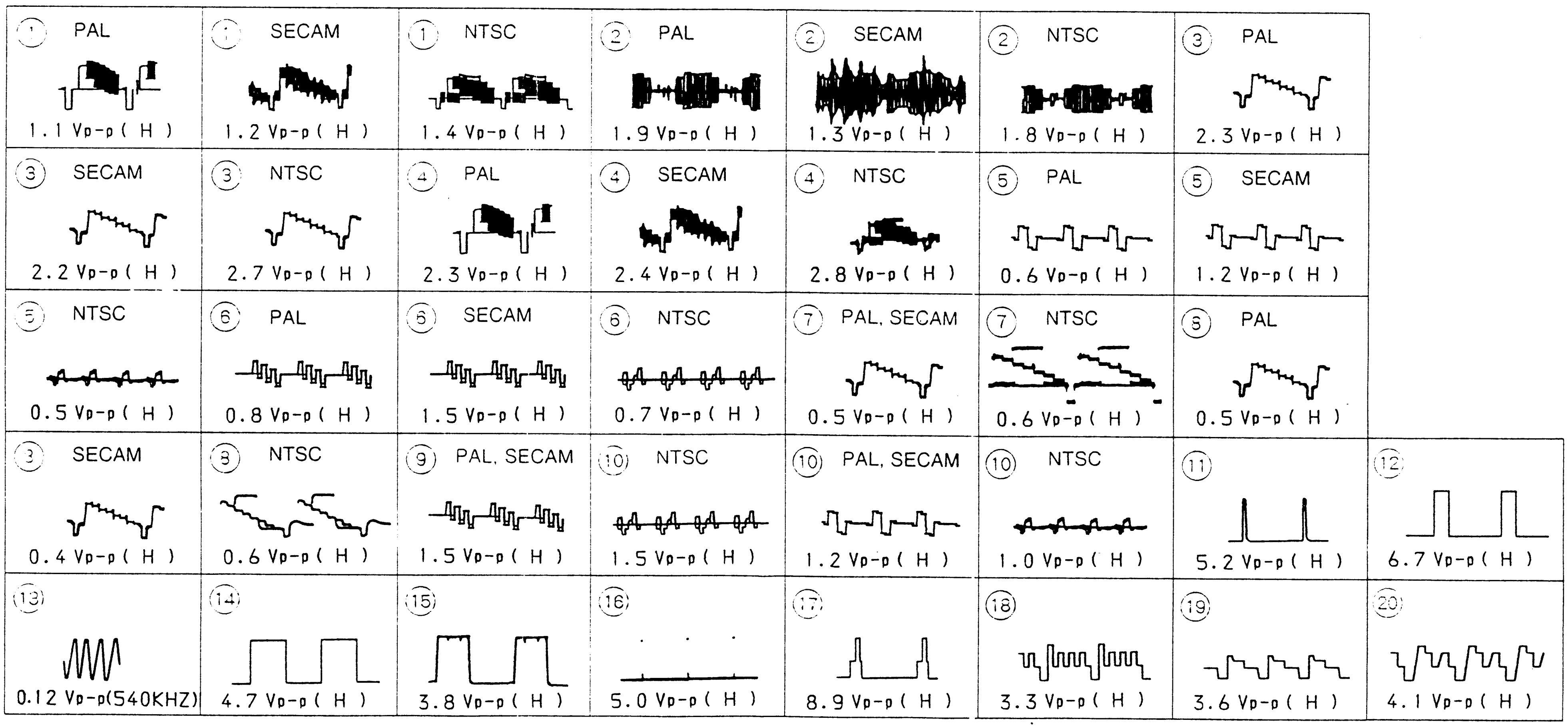
A BOARD IC304 CXA1587S


VM AMP
DA-TEST
IREF 1
Y DLY
SHP FO
AXIS SW
CLAMP
BGP
CLAMP
SUB CONT
DLY
Y-SW
TRAP
SHP
NR
APEO
PIC CONTROL
PIC AMP 2
ABL
BRT CONTROL
CLAMP
SW
COL
MAT & CLAMP
SW 1
PIC AMP 1
SW 2
GAMMA
DRIVE
SUB HUE HUE HUE OFF SUB COL COL C BLK
C SYNC
AFC
HVCO
SW MODE
H SYNC SEP
AKB
POWER ON RESET
H COUNT-DOWN
LOOP 2
PRE DRIVE
HOLD DOWN
POWER-ON SEQUENCE & AKB TIMING
H-LOCK
IREF 2
PULSE GENERATOR
TO DAC
TO LATCH
BUS DECORDER
V SYNC-SEP
V-EX

A BOARD IC681 TDA8138A

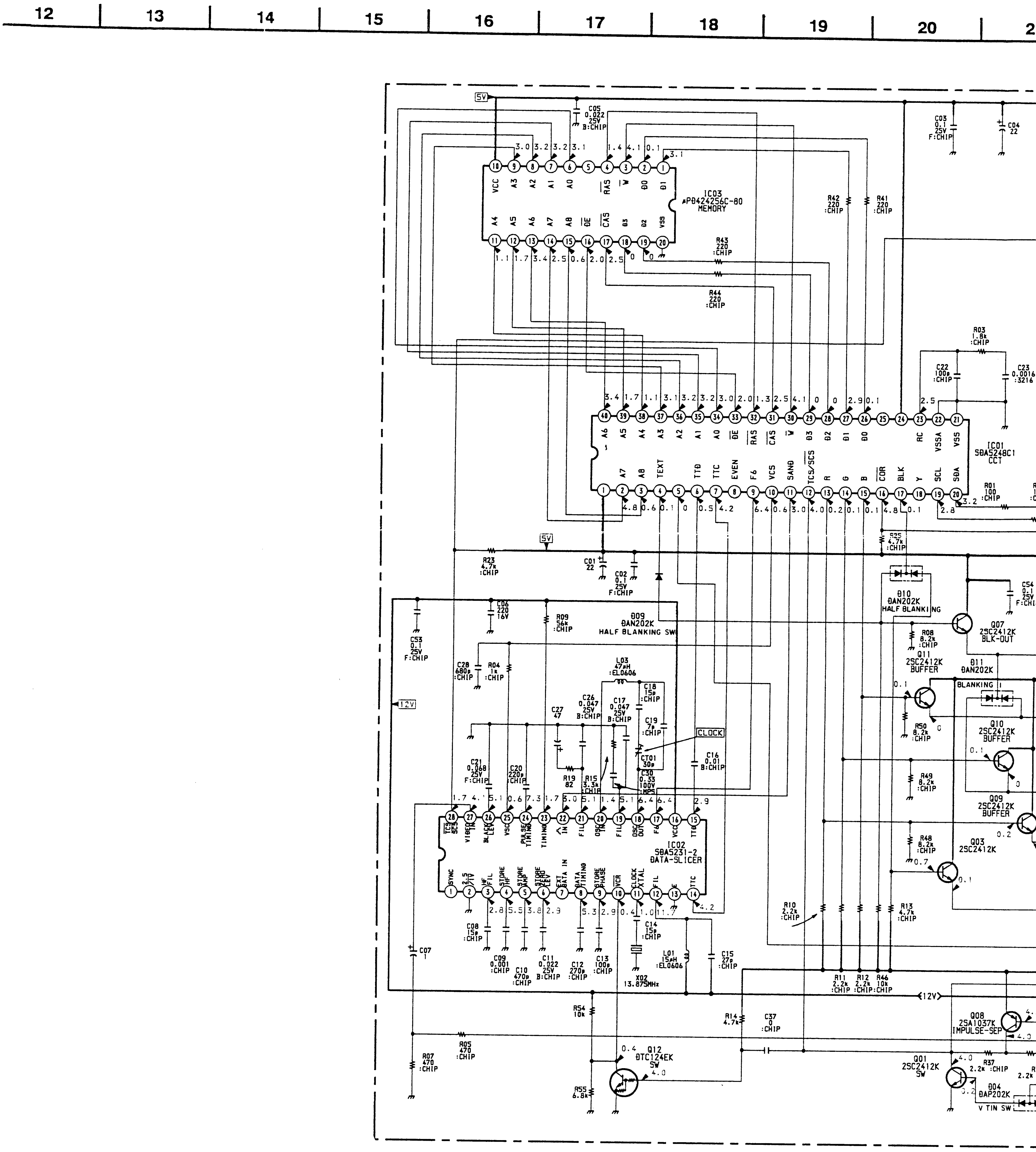

REG. 1
REG. 2
VOLTAGE REFER
THERMAL PROTECT

A BOARD



Schematic diagram
← A board

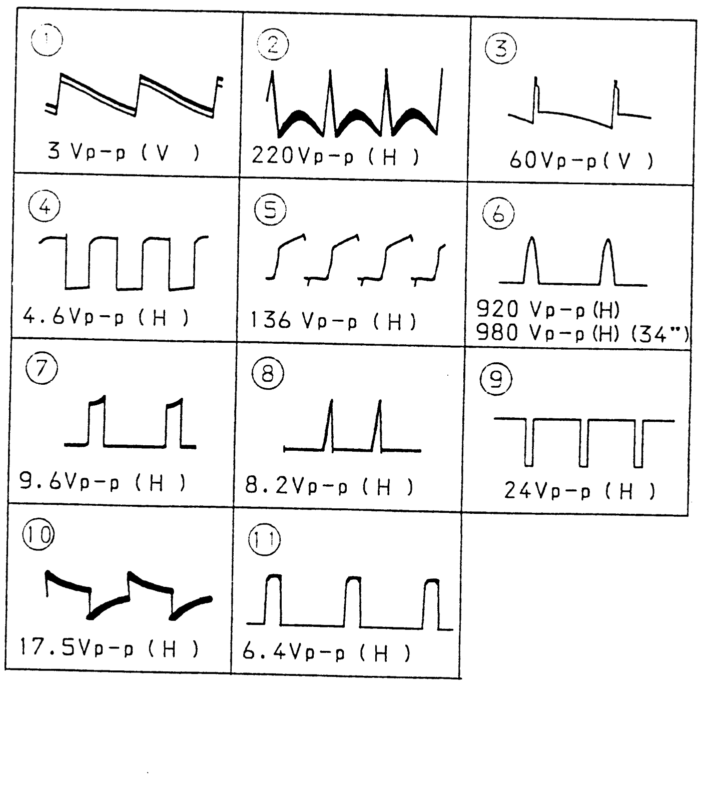
Schematic diagram
D 5 M 1 board →

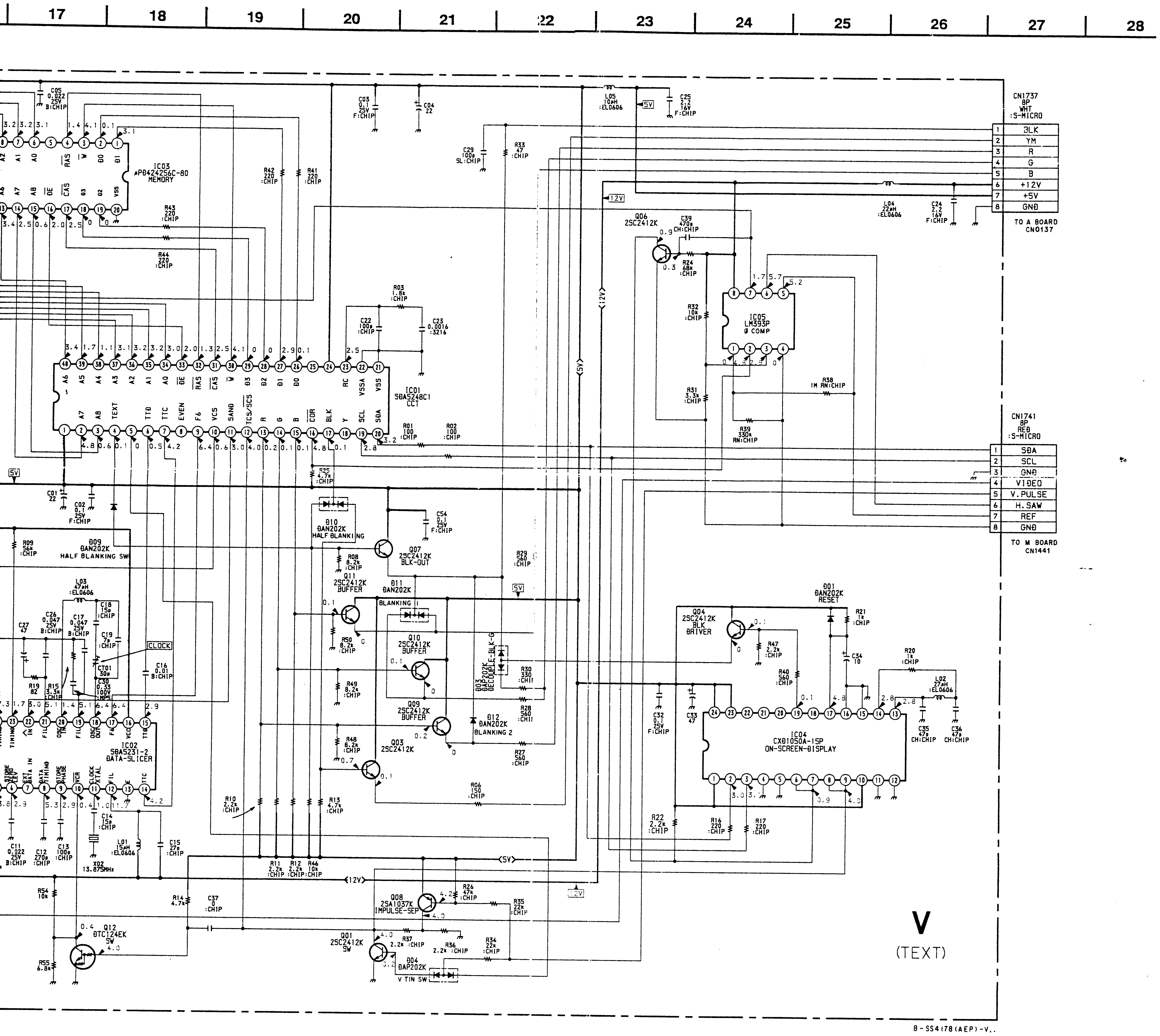

12
13
14
15
16
17
18
19
20
5V
12V
CLOCK
IC03
µPD424256C-80
MEMORY
IC01
SBA5248C1
CCT
IC02
SBA5231-2
DATA-SLICER
X02
13.875MHz
Q07
2SC2412K
BLK-OUT
Q11
2SC2412K
BUFFER
Q10
2SC2412K
BUFFER
Q09
2SC2412K
BUFFER
Q03
2SC2412K
Q08
2SA1037K
IMPULSE-SEP
Q01
2SC2412K
SW
Q12
DTC124EK
SW
D09
DAN202K
HALF BLANKING SW
D10
DAN202K
HALF BLANKING
D11
DAN202K
BLANKING
D04
DAP202K
V TIN SW
L03
47µH
:EL0606
L01
15µH
:EL0606
CT01
30p

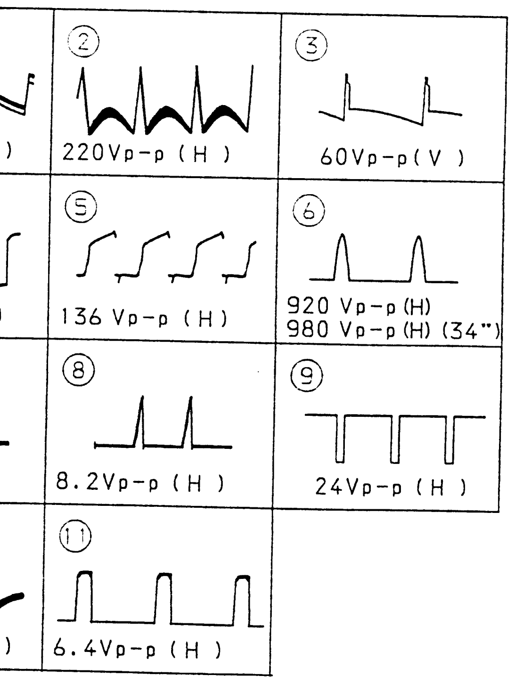
D BOARD : ⁑ MARK

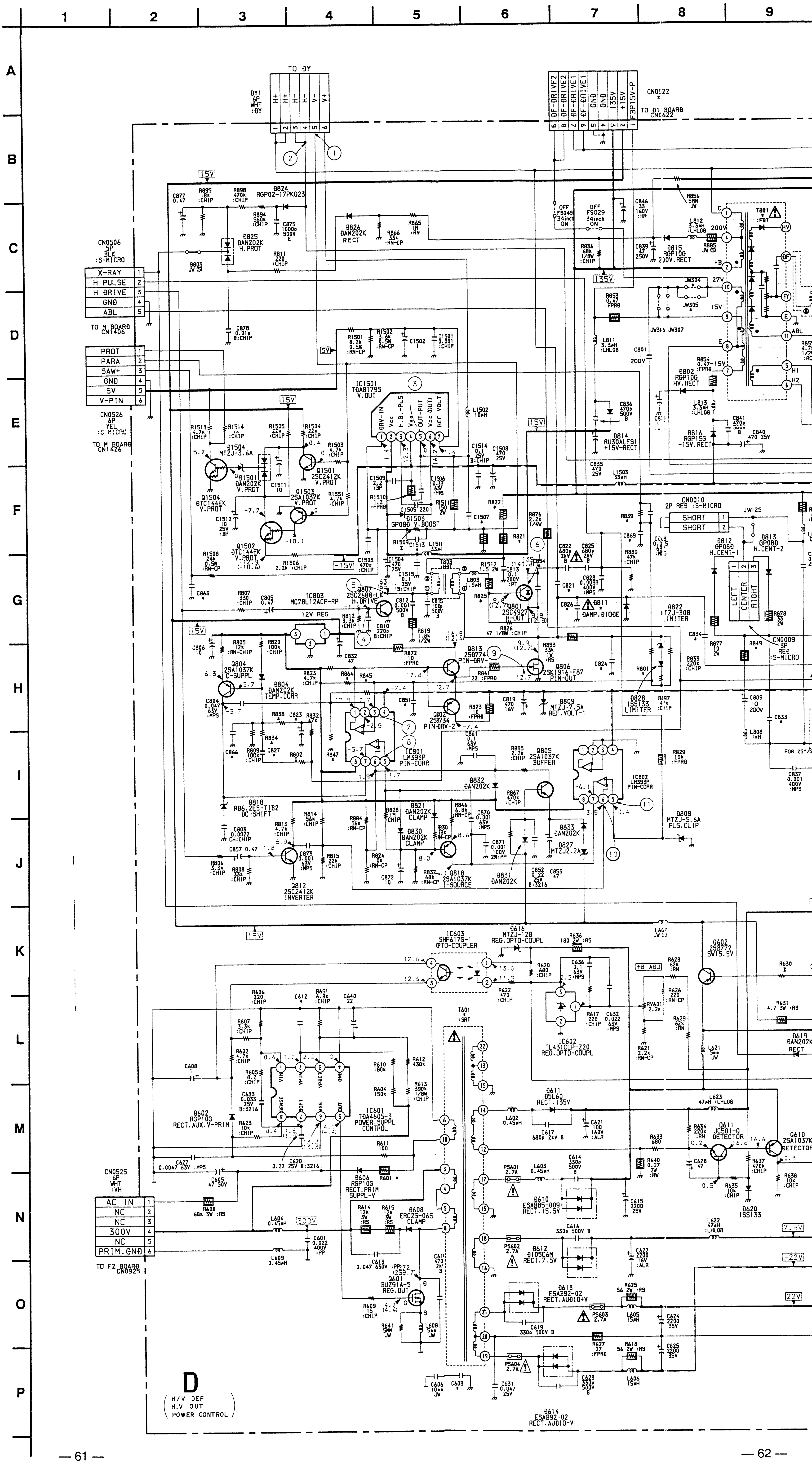
	KV-E2531D KV-E2531B	KV-E2931D KV-E2931B	KV-E3431D KV-E3431B
C603	0.0022 400V	0.0022 400V	—
C612	0.0056 50V	0.0068 63V	0.0068 63V
⚠ C821	0.021 1.2KV	0.021 1.2KV	1.2KV : PP
C823	0.47 50V	0.47 50V	1 50V
C824	0.0047 63V	0.0022 63V	0.0022 63V
⚠ C826	0.068 630V	0.068 630V	0.056 630V
C827	0.047 100V	0.1 100V : MPS	0.1 63V
C833	1.8 200V	2 200V	1.8 200V
C834	0.62 200V	0.82 200V	1.2 200V
C851	0.0047 400V	0.001 63V	0.001 63V
⚠ C854	330P 2KV B	560P 2KV A	330P 2KV B
C863	0.047 100V	0.047 100V	—
C866	0.001 400V	—	—
C869	0.1 100V	0.1 100V : MPS	0.1 63V
C1507	0.22 100V : MPS	0.27 100V : MPS	0.27 100V : MPS
C1513	—	—	68P 50V
CN0522	—	—	9P
D811	—	—	ERB44-06
JW304	20MM JW	—	—
JW305	20MM JW	—	—
L802	—	—	2.2MMH :EL0606
L817	HLC	HLC	HLT
R601	8.2 1W : RS	2.2 1W : RS	2.2 1W : RS
R630	2.2K 1/4W	2.2 1/4W	—
R801	6.8K : CHIP	1.5K : CHIP	1.5K : CHIP
R821	1.5K 3W : RS	1.2K 3W : RS	1.2K 3W : RS
R822	1.5K 3W : RS	1.2K 3W : RS	1.2K 3W : RS
R825	0.47 1W : RS	0.47 1W : RS	0.27 1W : RS
R834	330K : CHIP	150K : CHIP	180K : CHIP
R838	56K : CHIP	68K : CHIP	100K : CHIP
R839	1.8K : CHIP	3.6K : CHIP	3.6K : CHIP
R845	—	—	270K : CHIP
R847	100K : CHIP	82K : CHIP	150K : CHIP
R849	33 3W : RS	15 2W : RS	15 2W : RS
R864	30K : RN-CP	15K : RN-CP	150K : RN-CP
R868	33K 1/4W	15K 1/4W	8.2K 1/4W
R1502	3.9K	3.6K	3.6K
R1509	56K	47K	47K
⚠ T601	(SMT7) : RST	(SMT89) : RST	(SMT89) : RST
⚠ T801	UX-2600A2	UX-2600A2	UX-2602A3
T895	—	—	DFT

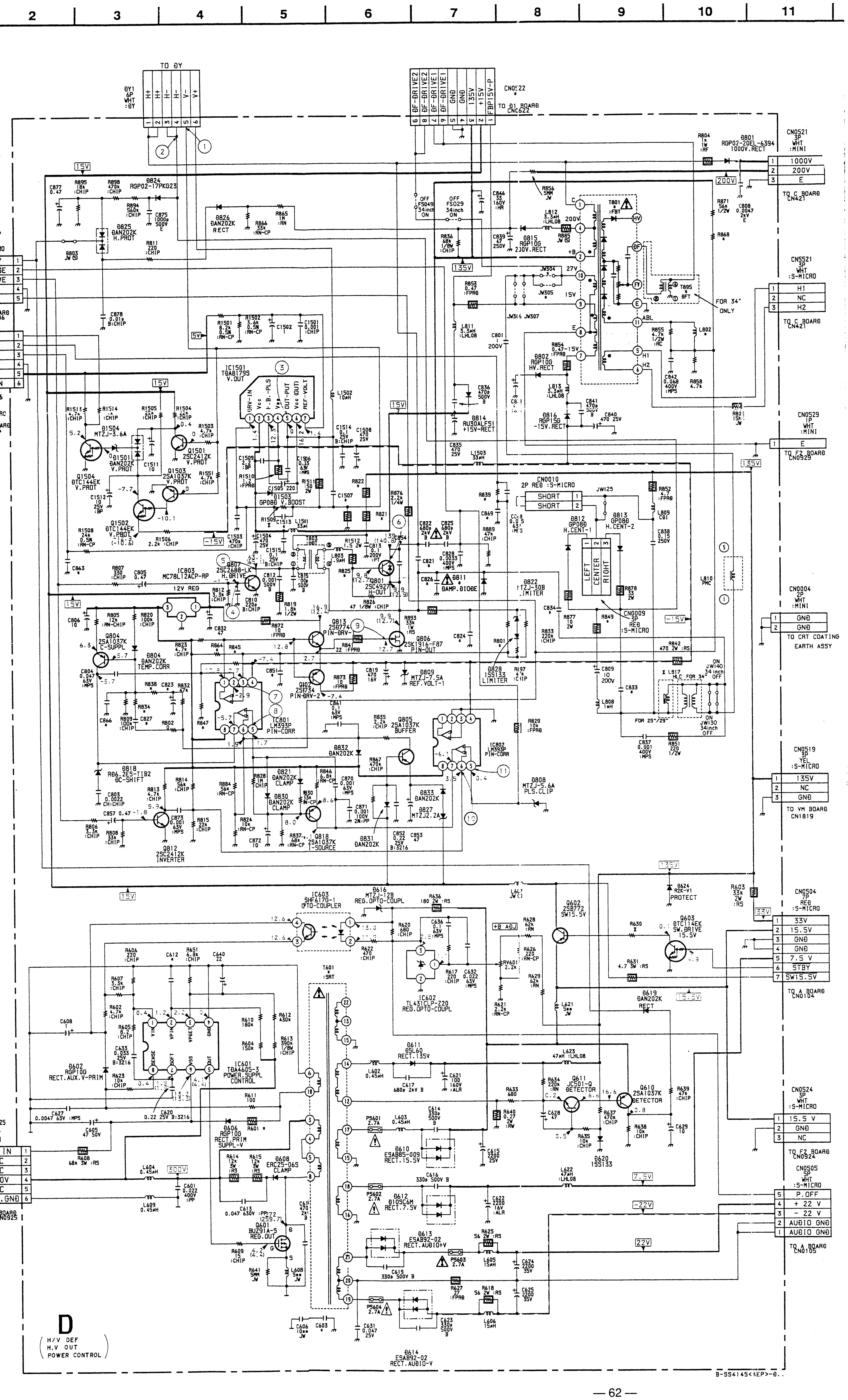
— D Board —



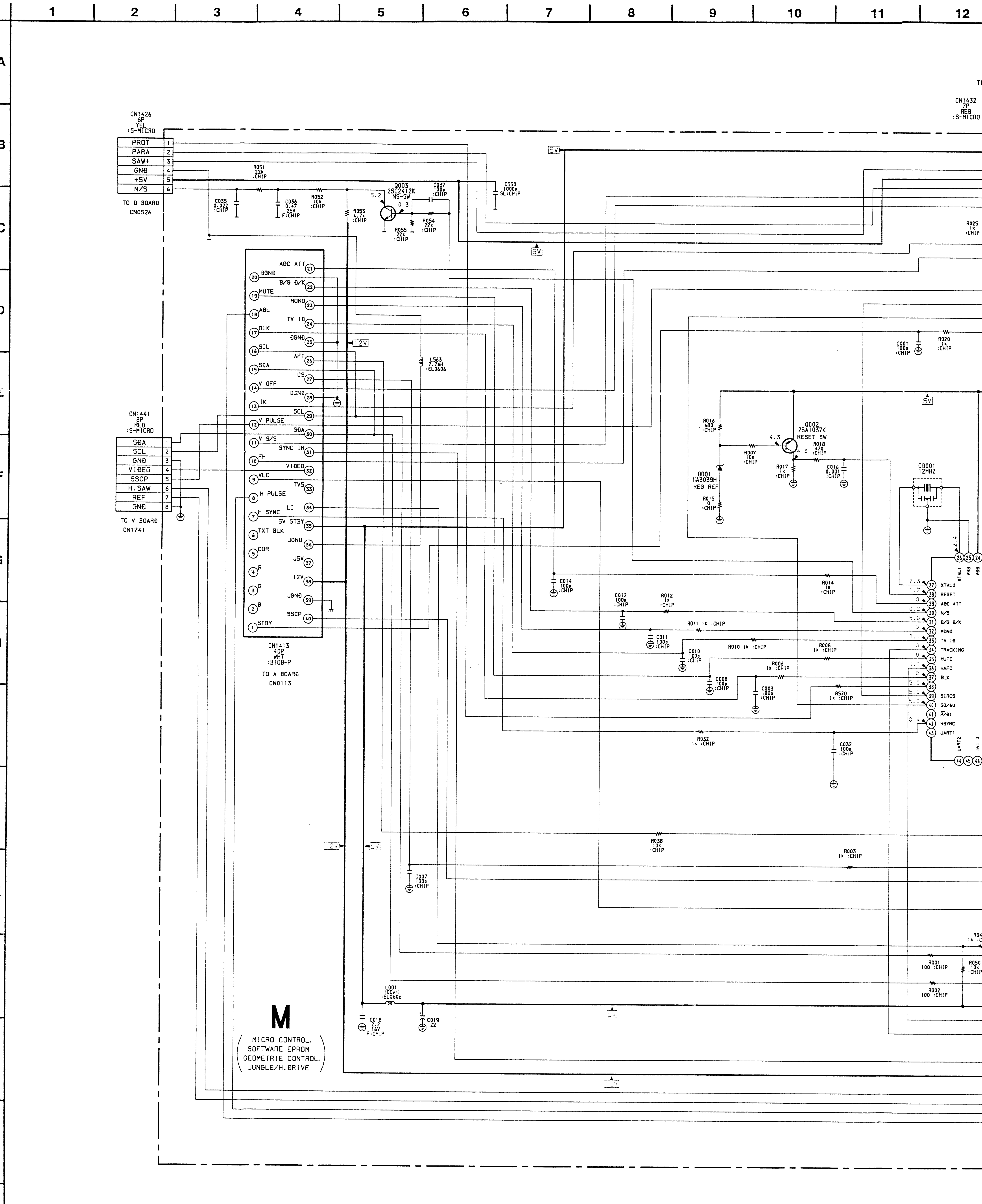

17
18
19
20
21
22
23
24
25
26
27
28
IC03 µPD424256C-80 MEMORY
IC01 SDA5248C1 CCT
IC02 SDA5231-2 DATA-SLICER
IC04 CXD1050A-1SP ON-SCREEN-DISPLAY
IC05 LM393P Ø COMP
Q06 2SC2412K
Q07 2SC2412K BLK-OUT
Q11 2SC2412K BUFFER
Q10 2SC2412K BUFFER
Q09 2SC2412K BUFFER
Q03 2SC2412K
Q04 2SC2412K BLK DRIVER
Q08 2SA1037K IMPULSE-SEP
Q01 2SC2412K SW
Q12 DTC124EK SW
D09 DAN202K HALF BLANKING SW
D10 DAN202K HALF BLANKING
D11 DAN202K BLANKING
D12 DAN202K BLANKING 2
D03 DAP202K DECOUPLE-BLK-G
D01 DAN202K RESET
D04 DAP202K V TIN SW
X02 13.875MHz
CLOCK
CN1737 8P WHT :S-MICRO
1 BLK
2 YM
3 R
4 G
5 B
6 +12V
7 +5V
8 GND
TO A BOARD CN0137
CN1741 8P RED :S-MICRO
1 SDA
2 SCL
3 GND
4 VIDEO
5 V.PULSE
6 H.SAW
7 REF
8 GND
TO M BOARD CN1441
V
(TEXT)
8-SS4178(AEP)-V..


②
220Vp-p (H)
③
60Vp-p(V)
⑤
136 Vp-p (H)
⑥
920 Vp-p (H)
980 Vp-p (H) (34")
⑧
8.2Vp-p (H)
⑨
24Vp-p (H)
⑪
6.4Vp-p (H)


D
H/V DEF
H.V OUT
POWER CONTROL
TO DY
DY1 6P WHT :DY
CN0E22
TO D1 BOARD CNC622
CN0506 5P BLK :S-MICRO
X-RAY
H PULSE
H DRIVE
GND
ABL
TO M BOARD CN1406
PROT
PARA
SAW+
GND
5V
V-PIN
CN0526 6P YEL :S MICRO
TO M BOARD CN1426
IC1501 TDA8179S V.OUT
IC803 MC78L12ACP-RP
12V REG
Q1504 DTC144EK V.PROT
Q1501 2SC2412K V.PROT
Q1503 2SA1037K V.PROT
Q1502 DTC144EK V.PROT
D1503 GP08D V.BOOST
Q807 2SC2688-LK H.DRIVE
Q801 2SC4927 H-OUT
D811 DAMP.DIODE
D822 TZJ-30B LIMITER
D828 1SS133 LIMITER
Q813 2SD774 PIN-DRV-1
Q806 2SK1916-F87 PIN-OUT
Q804 2SA1037K C-SUPPL
D804 DAN202K TEMP.CORR
Q102 2SJ734 PIN-DRV-2
D809 MTZJ-7.5A REF.VOLT-1
IC801 LM393P PIN-CORR
Q805 2SA1037K BUFFER
IC802 LM393P PIN-CORR
D808 MTZJ-5.6A PLS.CLIP
D818 RD6.2ES-T1B2 DC-SHIFT
Q812 2SC2412K INVERTER
D821 DAN202K CLAMP
D830 DAN202K CLAMP
Q818 2SA1037K I-SOURCE
D831 DAN202K
D833 DAN202K
D827 MTZJ2.2A
D832 DAN202K
D824 RGP02-17PKG23
D825 DAN202K H.PROT
D826 DAN202K RECT
D815 RGP10G 200V.RECT
D802 RGP10G HV.RECT
D816 RGP15G -15V.RECT
D814 RU30ALFS1 +15V-RECT
T801 :FBT
CN0010 2P RED :S-MICRO
SHORT
SHORT
D812 GP08D H.CENT-1
D813 GP08D H.CENT-2
LEFT
CENTER
RIGHT
CN0009 3P RED :S-MICRO
IC603 SHF617G-1 OPTO-COUPLER
D616 MTZJ-12B REG.OPTO-COUPL
IC602 TL431CLP-Z20 REG.OPTO-COUPL
Q602 2SB772 SW15.5V
IC601 TDA4605-3 POWER.SUPPL CONTROL
D602 RGP10G RECT.AUX.V-PRIM
D606 RGP10G RECT.PRIM SUPPL-V
D608 ERC25-06S CLAMP
Q601 BUZ91A-S REG.OUT
T601 :SRT
D611 D5L60 RECT.135V
D610 ESAB85-009 RECT.15.5V
D612 D10SC6M RECT.7.5V
D613 ESAB92-02 RECT.AUDIO+V
D614 ESAB92-02 RECT.AUDIO-V
Q611 JC501-Q DETECTOR
Q610 2SA1037K DETECTOR
D620 1SS133
D619 DAN202K RECT
CN0525 6P WHT :VH
AC IN
NC
NC
300V
NC
PRIM.GND
TO F2 BOARD CN0925
15V
5V
-15V
135V
300V
+B ADJ
7.5V
-22V
22V
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P


2
3
4
5
6
7
8
9
10
11
TO DY
DY1 6P WHT :DY
H+
H+
H-
H-
V-
V+
DF-DRIVE2
DF-DRIVE2
DF-DRIVE1
DF-DRIVE1
GND
GND
135V
+15V
FBP15V-P
CN0522
TO D1 BOARD CN622
CN0521 3P WHT :MINI
1000V
200V
E
TO C BOARD CN421
CN5521 3P WHT :S-MICRO
H1
NC
H2
TO C BOARD CN421
CN0529 1P WHT :MINI
E
TO F2 BOARD CN0929
CN0004 2P WHT :MINI
GND
GND
TO CRT COATING EARTH ASSY
CN0519 3P YEL :S-MICRO
135V
NC
GND
TO VM BOARD CN1819
CN0504 7P RED :S-MICRO
33V
15.5V
GND
GND
7.5 V
STBY
SW15.5V
TO A BOARD CN0104
CN0524 3P WHT :S-MICRO
15.5 V
GND
NC
TO F2 BOARD CN0924
CN0505 5P WHT :S-MICRO
P.OFF
+ 22 V
- 22 V
AUDIO GND
AUDIO GND
TO A BOARD CN0105
T801 :FBT
T895 :BFT
FOR 34" ONLY
IC1501 TDA8179S V.OUT
IC803 MC78L12ACP-RP 12V REG
IC801 LM393P PIN-CORR
IC802 LM393P PIN-CORR
Q801 2SC4927 H-OUT
Q807 2SC2688-LK H.DRIVE
Q806 2SK1916-F87 PIN-OUT
Q813 2SB774 PIN-DRV-1
Q102 2SD734 PIN-DRV-2
Q805 2SA1037K BUFFER
Q804 2SA1037K C-SUPPL
Q812 2SC2412K INVERTER
Q818 2SA1037K I-SOURCE
D801 RGP02-20EL-6394 1000V.RECT
D815 RGP10G 200V.RECT
D802 RGP10G HV.RECT
D814 RU30ALFS1 +15V-RECT
D816 RGP15G -15V.RECT
D811 DAMP.DIODE
D822 MTZJ-30B LIMITER
D828 1SS133 LIMITER
D809 MTZJ-7.5A REF.VOLT-1
D808 MTZJ-5.6A PLS.CLIP
D812 GP08D H.CENT-1
D813 GP08D H.CENT-2
CN0010 2P RED :S-MICRO
SHORT
SHORT
LEFT
CENTER
RIGHT
CN0009 3P RED :S-MICRO
IC603 SHF617G-1 OPTO-COUPLER
IC602 TL431CLP-Z20 REG.OPTO-COUPL
IC601 TDA4605-3 POWER.SUPPL CONTROL
D616 MTZJ-12B REG.OPTO-COUPL
Q602 2SB772 SW15.5V
Q603 DTC114EK SW.DRIVE 15.5V
Q601 BUZ91A-S REG.OUT
Q611 JC501-Q DETECTOR
Q610 2SA1037K DETECTOR
D624 R2K-V1 PROTECT
D619 DAN202K RECT
D620 1SS133
D602 RGP10G RECT.AUX.V-PRIM
D606 RGP10G RECT.PRIM SUPPL-V
D608 ERC25-06S CLAMP
D611 DSL60 RECT.135V
D610 ESAB85-009 RECT.15.5V
D612 D10SC6M RECT.7.5V
D613 ESAB92-02 RECT.AUDIO+V
D614 ESAB92-02 RECT.AUDIO-V
T601 :SRT
D
H/V DEF
H.V OUT
POWER CONTROL

B-SS4145<AEP>-0..


1
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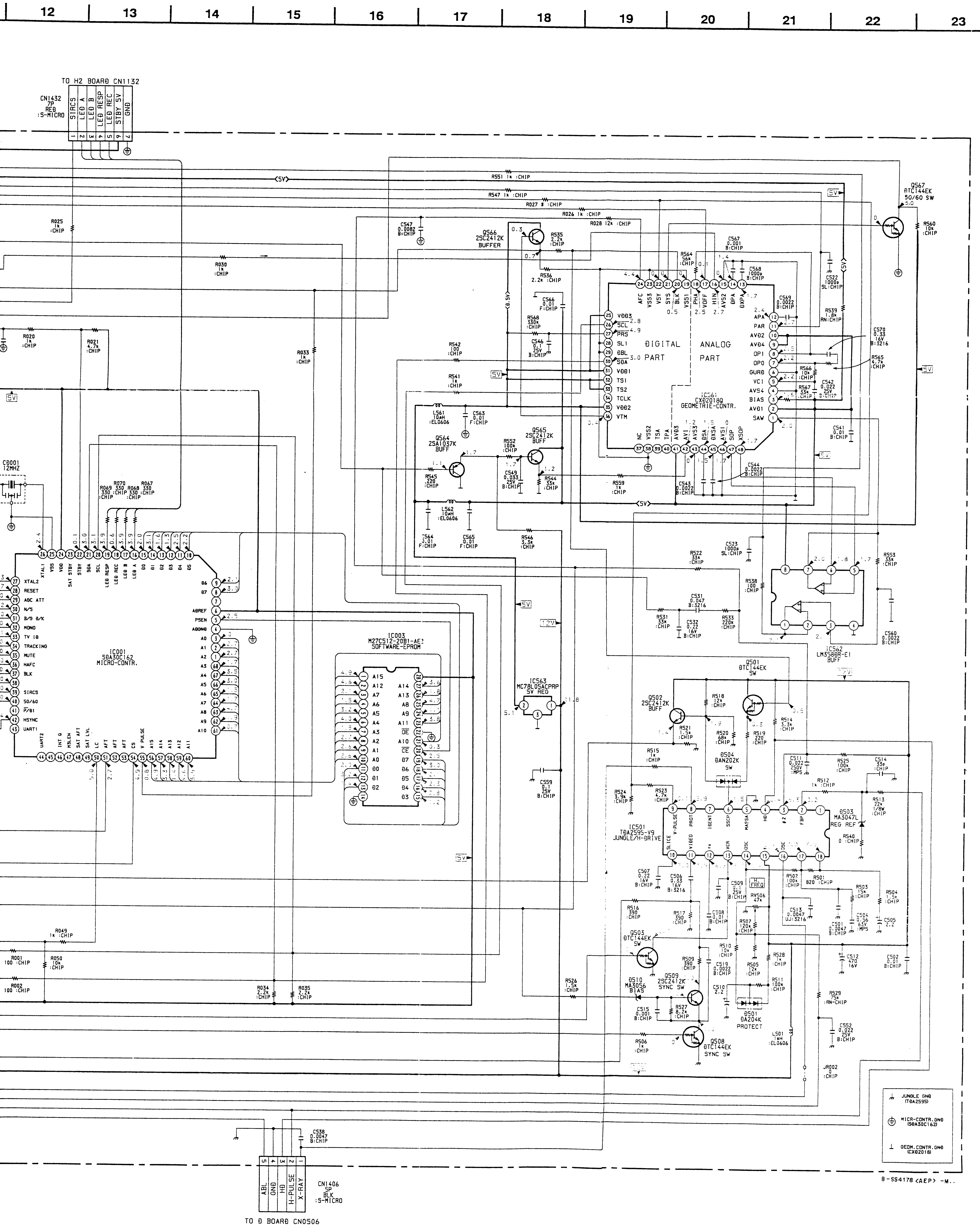
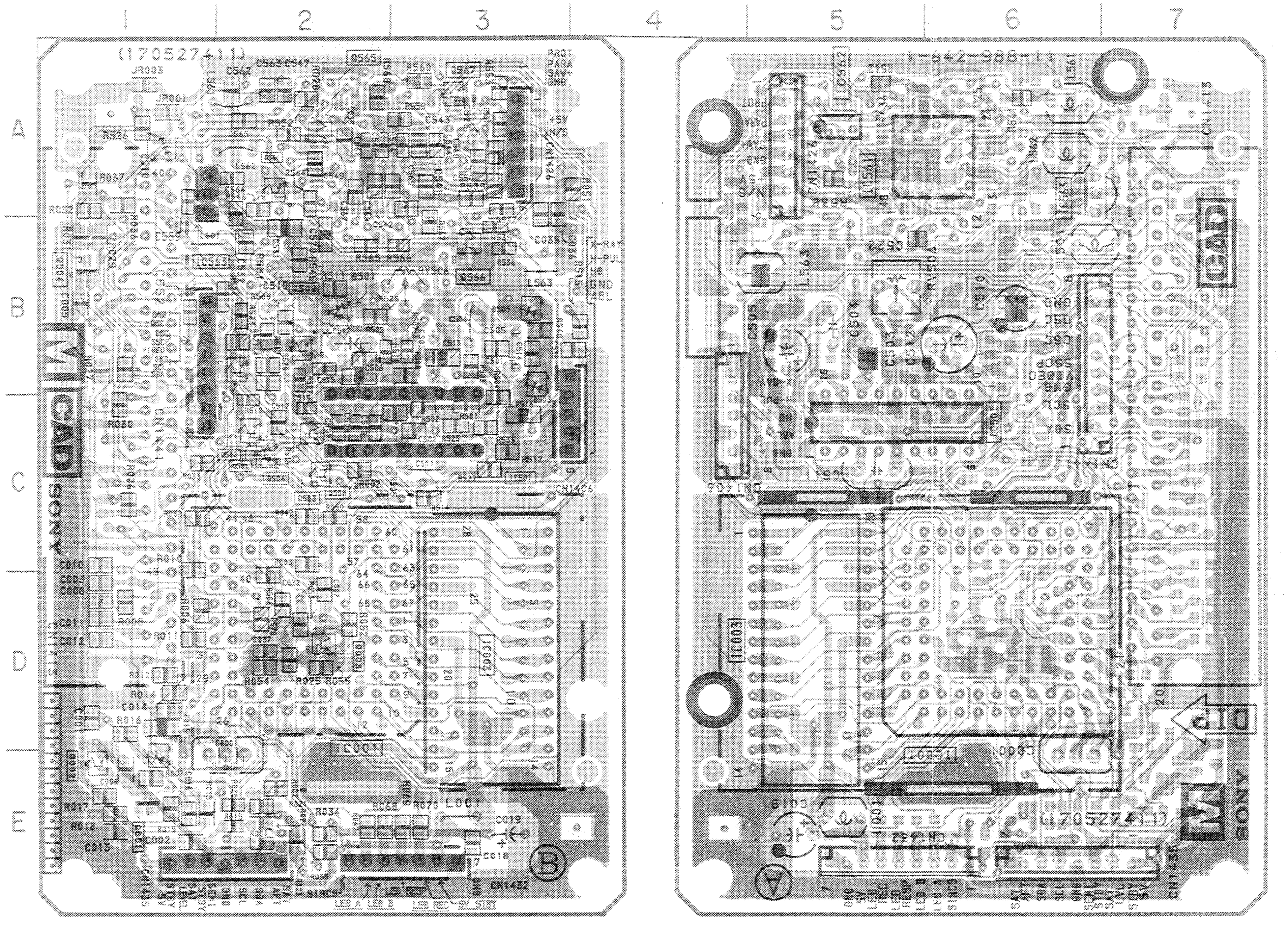
7
8
9
10
11
12
A
B
C
D
E
F
G
H
CN1426
6P
YEL
:S-MICRO
PROT 1
PARA 2
SAW+ 3
GND 4
+5V 5
N/S 6
TO D BOARD
CN0526
R051
22k
:CHIP
C035
0.022
:CHIP
C036
0.47
25V
F:CHIP
R052
10k
:CHIP
R053
4.7k
:CHIP
Q003
2SC2412K
NS-SW
5.2
0.3
R055
22k
:CHIP
C037
100p
:CHIP
R054
22k
:CHIP
C550
1000p
SL:CHIP
5V
5V
CN1432
7P
RED
:S-MICRO
TO
R025
1k
:CHIP
AGC ATT 21
20 DGND
B/G D/K 22
19 MUTE
MONO 23
18 ABL
TV ID 24
17 BLK
DGND 25
16 SCL
AFT 26
15 SDA
CS 27
14 V OFF
DGND 28
13 IK
SCL 29
12 V PULSE
SDA 30
11 V S/S
SYNC IN 31
10 FH
VIDEO 32
9 VLC
TVS 33
8 H PULSE
LC 34
7 H SYNC
5V STBY 35
6 TXT BLK
JGND 36
5 COR
J5V 37
4 R
12V 38
3 G
JGND 39
2 B
SSCP 40
1 STBY
12V
L563
2.2mH
:EL0606
CN1413
40P
WHT
:BTOB-P
TO A BOARD
CN0113
CN1441
8P
RED
:S-MICRO
SDA 1
SCL 2
GND 3
VIDEO 4
SSCP 5
H.SAW 6
REF 7
GND 8
TO V BOARD
CN1741
C001
100p
:CHIP
R020
1k
:CHIP
5V
R016
680
:CHIP
Q002
2SA1037K
RESET SW
4.3
4.8
R007
10k
:CHIP
R018
470
:CHIP
R017
1k
:CHIP
C016
0.001
:CHIP
D001
MA3039H
REG REF
R015
0
:CHIP
CD001
12MHZ
2.4
26 XTAL1
25 VSS
24 VDD
C014
100p
:CHIP
C012
100p
:CHIP
R012
1k
:CHIP
R014
1k
:CHIP
R011 1k :CHIP
C011
100p
:CHIP
C010
100p
:CHIP
R010 1k :CHIP
R008
1k :CHIP
R006
1k :CHIP
C008
100p
:CHIP
C003
100p
:CHIP
R570
1k :CHIP
R032
1k :CHIP
C032
100p
:CHIP
2.3 27 XTAL2
1.7 28 RESET
0 29 AGC ATT
0.2 30 N/S
5.0 31 B/G D/K
0 32 MONO
0.1 33 TV ID
0 34 TRACKING
0 35 MUTE
5.0 36 HAFC
0 37 BLK
5.0 38
5.0 39 SIRCS
5.0 40 50/60
41 P/D1
0.4 42 HSYNC
43 UART1
44 UART2
45
46 INT Q
R038
10k
:CHIP
R003
1k :CHIP
12V
5V
C007
100p
:CHIP
R04
1k :C
R001
100 :CHIP
R050
10k
:CHIP
R002
100 :CHIP
L001
100μH
:EL0606
C018
2.2
16V
F:CHIP
C019
22
5V
12V
M
MICRO CONTROL,
SOFTWARE EPROM
GEOMETRIE CONTROL,
JUNGLE/H.DRIVE


12
13
14
15
16
17
18
19
20
21
22
23
TO H2 BOARD CN1132
CN1432 7P RED :S-MICRO
SIRCS
LED A
LED B
LED RESP
LED REC
STBY 5V
GND
IC001 SDA30C162 MICRO-CONTR.
C0001 12MHZ
XTAL2
RESET
AGC ATT
N/S
B/G B/K
MONO
TV IB
TRACKING
MUTE
HAFC
BLK
SIRCS
50/60
P/BI
HSYNC
UART1
IC003 M27C512-20B1-AE2 SOFTWARE-EPROM
IC561 CXD2018Q GEOMETRIE-CONTR.
DIGITAL PART
ANALOG PART
Q566 2SC2412K BUFFER
Q564 2SA1037K BUFF
Q565 2SC2412K BUFF
Q567 DTC144EK 50/60 SW
IC563 MC78L05ACPRP 5V REG
IC562 LM358DR-E1 BUFF
Q501 DTC144EK SW
Q502 2SC2412K BUFF
D504 DAN202K SW
IC501 TDA2595-V9 JUNGLE/H-DRIVE
D503 MA3047L REG REF
Q503 DTC144EK SW
D510 MA3056 BIAS
Q509 2SC2412K SYNC SW
Q508 DTC144EK SYNC SW
D501 DA204K PROTECT
CN1406 5P BLK :S-MICRO
ABL
GND
HD
H-PULSE
X-RAY
TO D BOARD CN0506
JUNGLE GND (TDA2595)
MICR-CONTR. GND (SDA30C162)
GEOM. CONTR. GND (CXD2018)
B-SS4178 <AEP> -M..

M [MICRO CONTROL, SOFTWARE EPROM, GEOMETRIE CONTROL, JUNGLE, H. DRIVE]

— **M Board** —

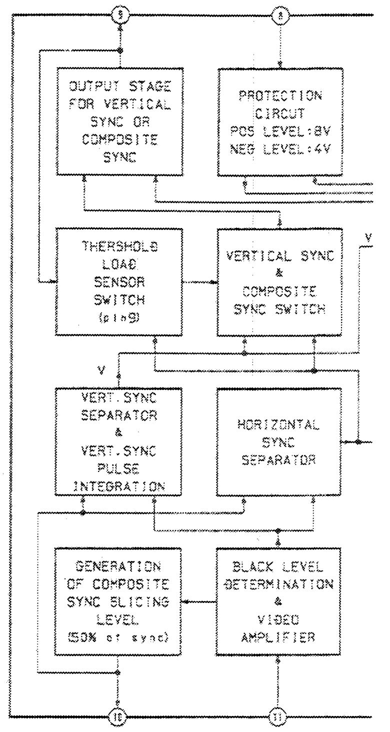

1
2
3
4
5
6
7
A
B
C
D
E
(170527411)
1-642-988-11
M
CAD
SONY
DIP
IC001
IC003
CN1432
CN1435
A
B

▨ : Pattern from the side which enables seeing.
▨ : Pattern of the rear side.

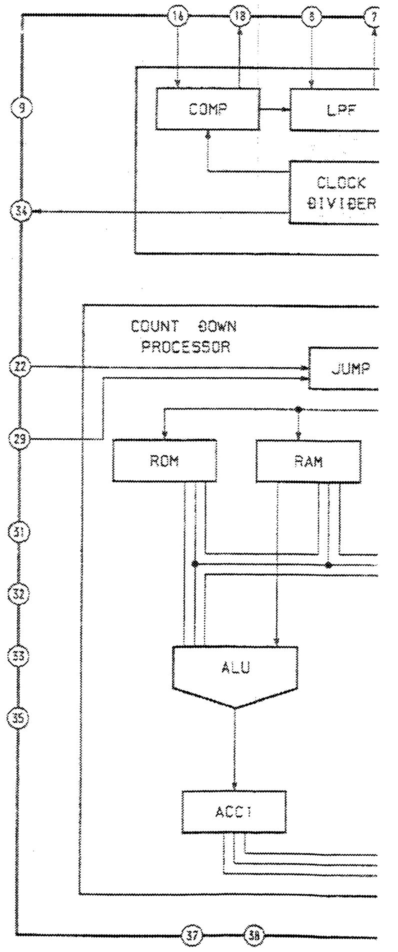
— **M Board** —

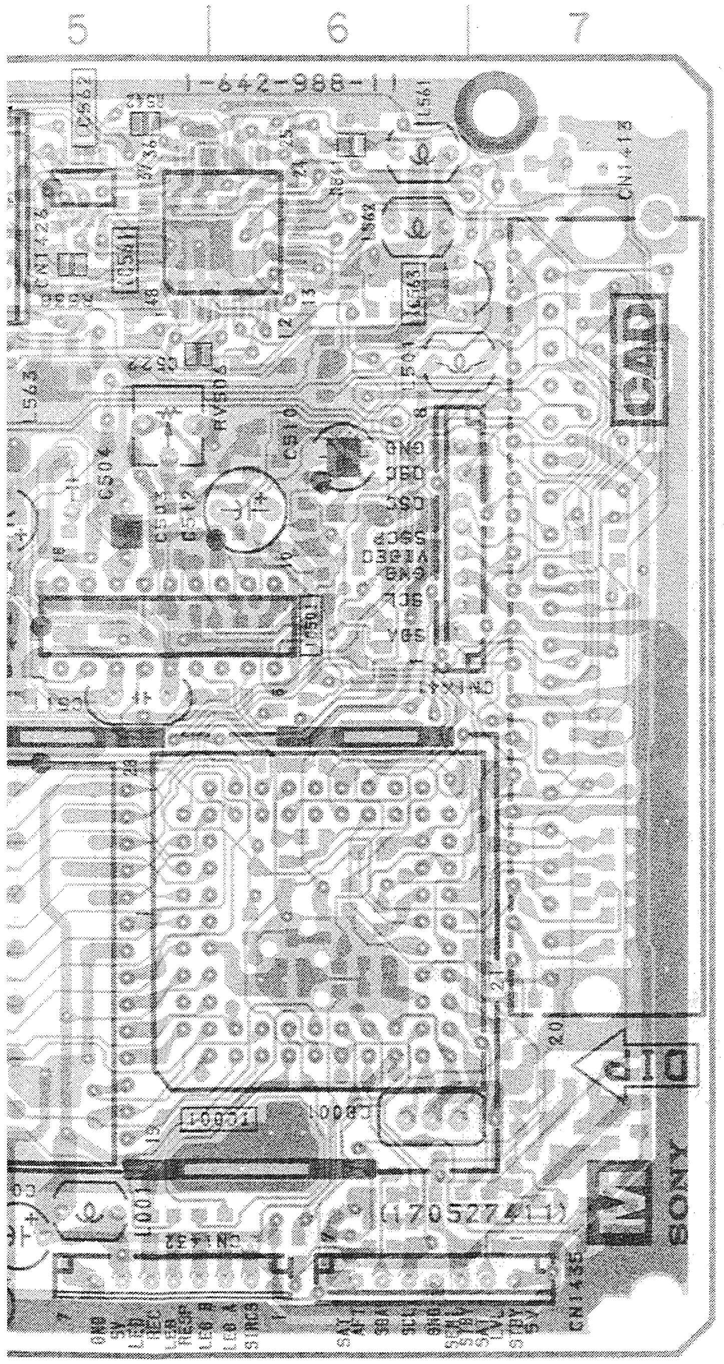
IC	
IC001	D-2
IC003	D-3
IC501	C-3
IC561	A-6
IC562	A-5
IC563	B-1
TRANSISTOR	
Q002	E-1
Q003	D-2
Q501	C-2
Q502	B-2
Q503	C-2
Q508	C-2
Q509	B-2
Q564	A-2
Q565	A-2
Q566	B-3
Q567	A-3
DIODE	
D001	E-1
D501	B-2
D503	B-3
D504	C-2
D505	B-3
D510	A-1
VARIABLE RESISTOR	
RV506	B-3

M BOARD IC501 TDA2595/ V


9
8
OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
THERSHOLD LOAD SENSOR SWITCH (pin9)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
VERT. SYNC SEPARATOR & VERT. SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
10
11

M BOARD IC561 CXD2018Q


16
18
6
7
9
34
COMP
LPF
CLOCK DIVIDER
COUNT DOWN PROCESSOR
22
29
JUMP
ROM
RAM
31
32
33
35
ALU
ACC1
37
38

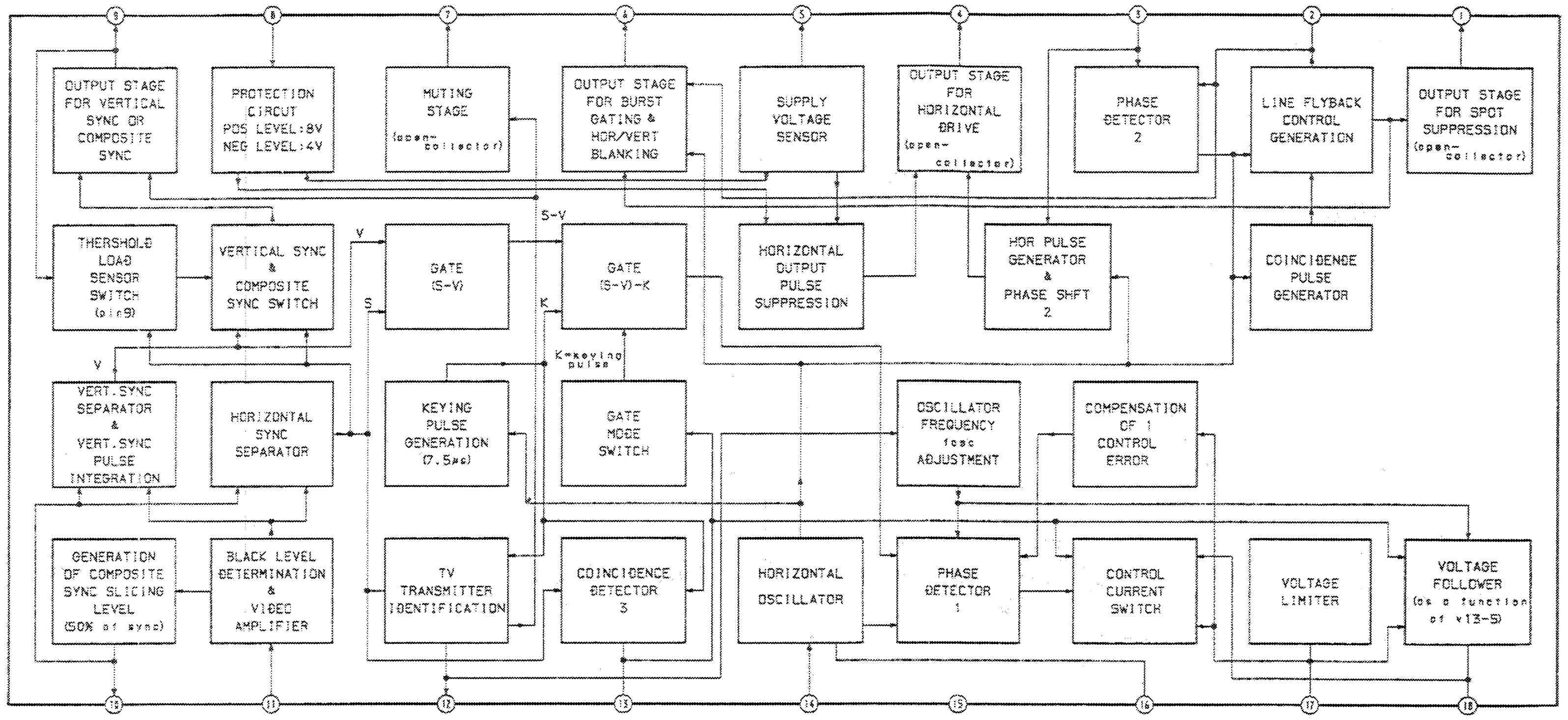

5
6
7
1-642-988-11
CAD
DIP
SONY
M
1705274(11)

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

— M Board —

IC	
IC001	D-2
IC003	D-3
IC501	C-3
IC561	A-6
IC562	A-5
IC563	B-1
TRANSISTOR	
Q002	E-1
Q003	D-2
Q501	C-2
Q502	B-2
Q503	C-2
Q508	C-2
Q509	B-2
Q564	A-2
Q565	A-2
Q566	B-3
Q567	A-3
DIODE	
D001	E-1
D501	B-2
D503	B-3
D504	C-2
D505	B-3
D510	A-1
VARIABLE RESISTOR	
RV506	B-3

M BOARD IC501 TDA2595/ V9


9
8
7
6
5
4
3
2
1
OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH (pin9)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
GATE (S-V)
S-V
GATE (S-V)-K
S
K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENCE PULSE GENERATOR
V
VERT.SYNC SEPARATOR & VERT.SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
K=keying pulse
KEYING PULSE GENERATION (7.5μs)
GATE MODE SWITCH
OSCILLATOR FREQUENCY fosc ADJUSTMENT
COMPENSATION OF 1 CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of v13-5)
10
11
12
13
14
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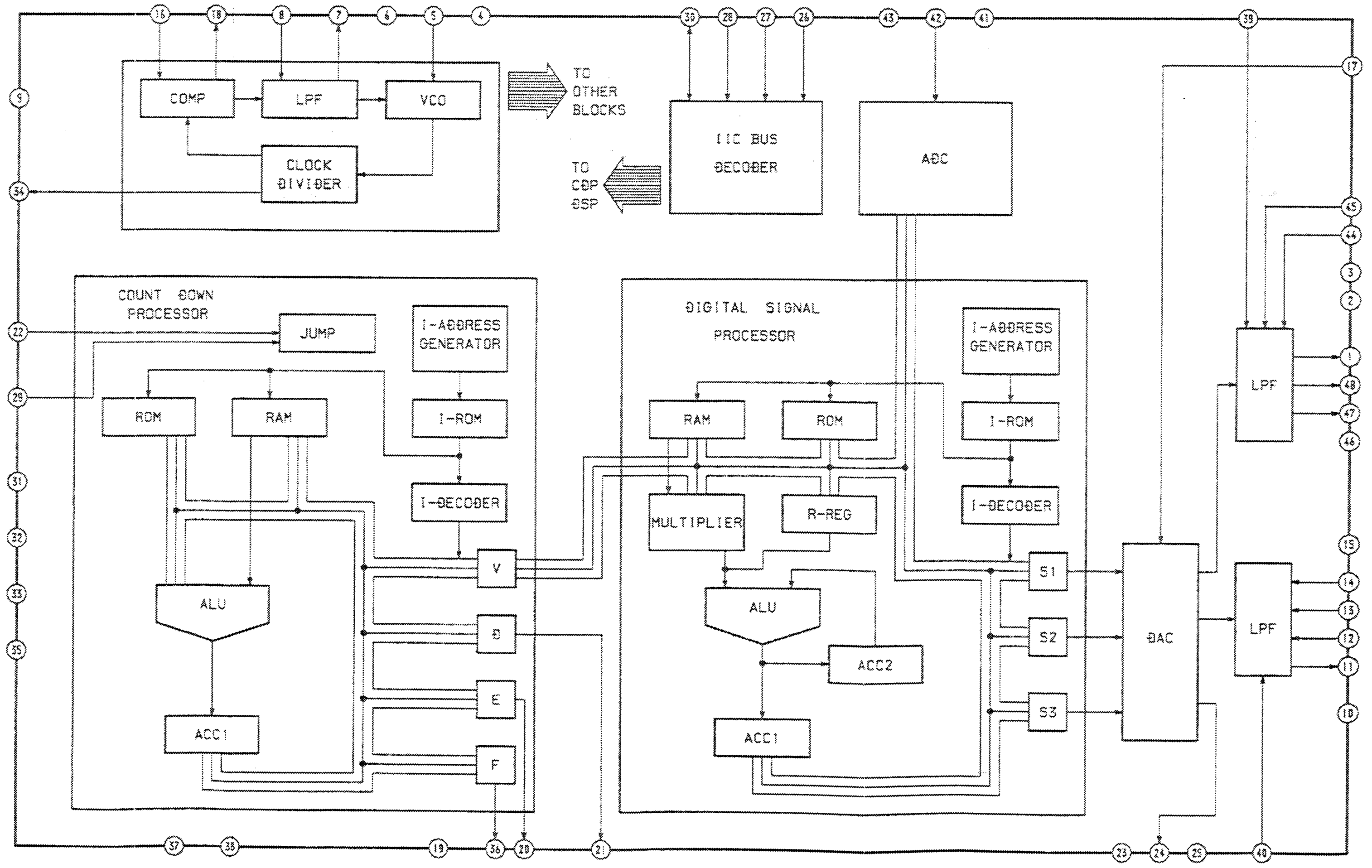
16
17
18

M BOARD IC561 CXD2018Q


16
18
8
7
6
5
4
30
28
27
26
43
42
41
39
COMP
LPF
VCO
CLOCK DIVIDER
TO OTHER BLOCKS
TO CDP DSP
IIC BUS DECODER
ADC
9
34
17
45
44
3
2
COUNT DOWN PROCESSOR
JUMP
I-ADDRESS GENERATOR
ROM
RAM
I-ROM
I-DECODER
ALU
ACC1
V
D
E
F
DIGITAL SIGNAL PROCESSOR
I-ADDRESS GENERATOR
RAM
ROM
I-ROM
MULTIPLIER
R-REG
I-DECODER
ALU
ACC2
ACC1
S1
S2
S3
DAC
LPF
LPF
22
29
31
32
33
35
1
48
47
46
15
14
13
12
11
10
37
38
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36
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21
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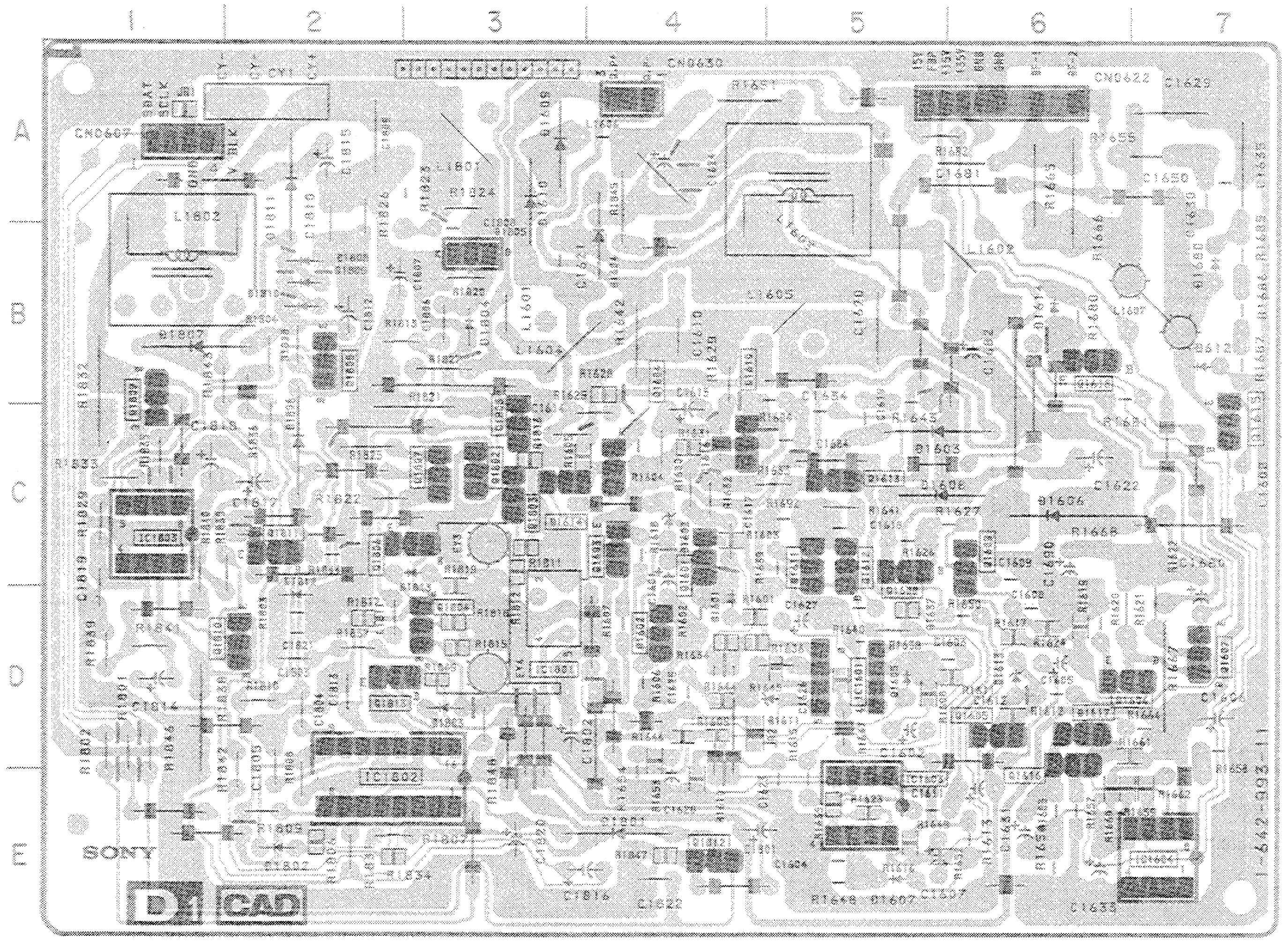
40

D1 [CONVERGENCE]

— D1 Board — (KV-E3431D, E3431B ONLY)

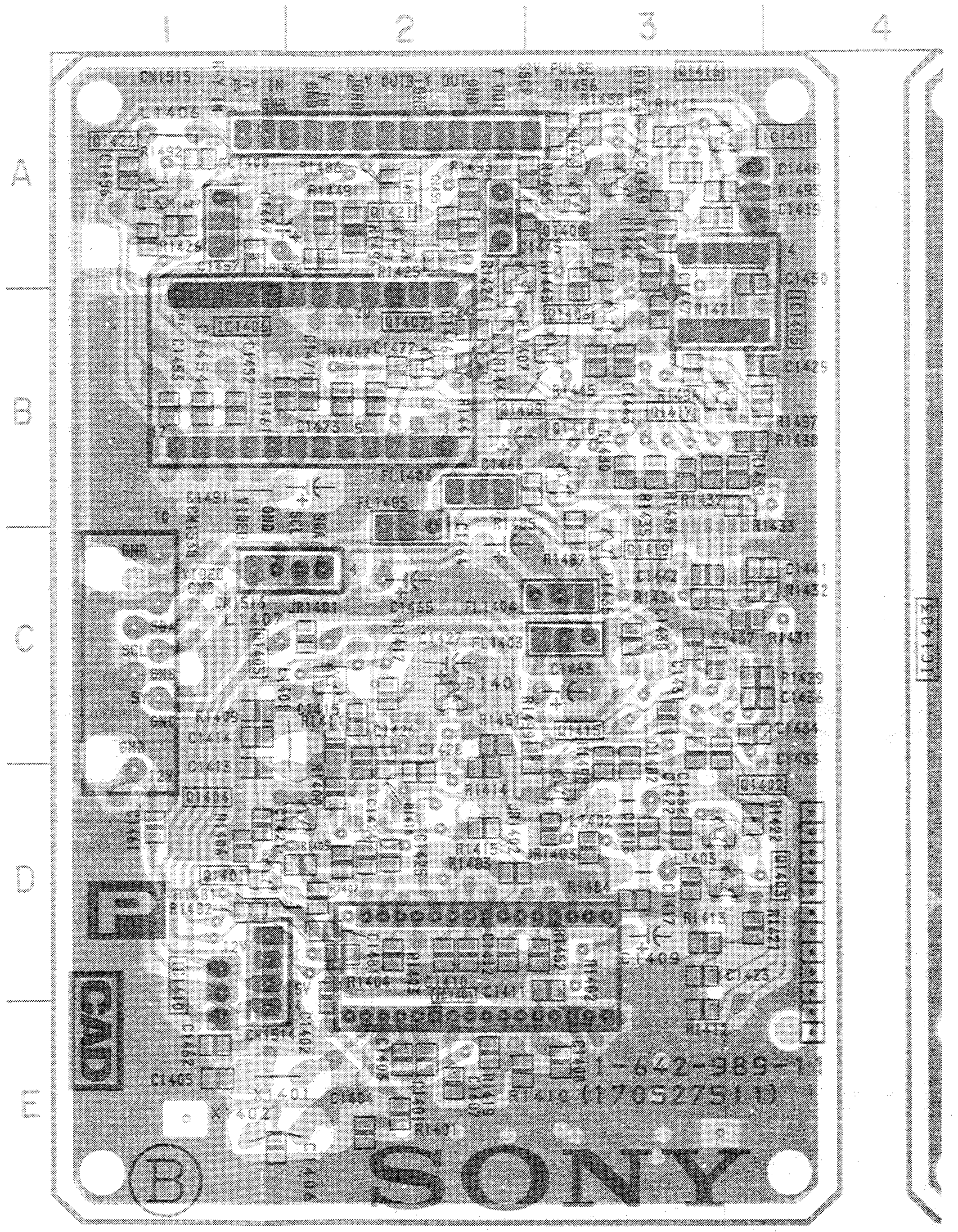

1
2
3
4
5
6
7
A
B
C
D
E
CN0630
CN0622
CN0607
L1801
L1802
L1601
L1602
L1603
L1604
L1605
IC1801
IC1802
IC1803
IC1603
IC1604
SONY
D1
CAD
1-642-993-11

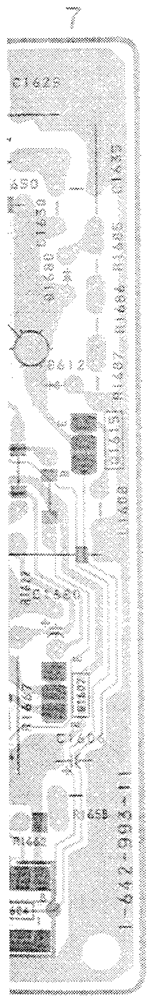
— D1 Board —
(KV-E3431D, E3431B ONLY)

IC	
IC1603	E-5
IC1801	D-3
IC1802	E-2
IC1803	C-1
TRANSISTOR	
Q1610	C-4
Q1613	C-5
Q1802	C-3
Q1803	C-3
Q1804	D-3
Q1805	C-3
Q1806	C-3
Q1807	C-3
Q1808	B-2
Q1809	B-1
Q1810	D-2
Q1811	C-2
Q1812	E-4
Q1813	D-2
DIODE	
D1603	C-5
D1801	E-4
D1802	E-2
D1803	D-3
D1804	B-3
D1805	B-3
D1806	C-2
D1807	B-1
D1808	B-2
D1809	B-2
D1810	B-2
D1811	A-2
D1812	D-2

P [PICTURE IN PICTURE]

— P Board —


1
2
3
4
A
B
C
D
E
CN1515
CN1514
IC1404
IC1403
X1401
X1402
P
CAD
1-642-989-11
(1705275 11)
SONY
B

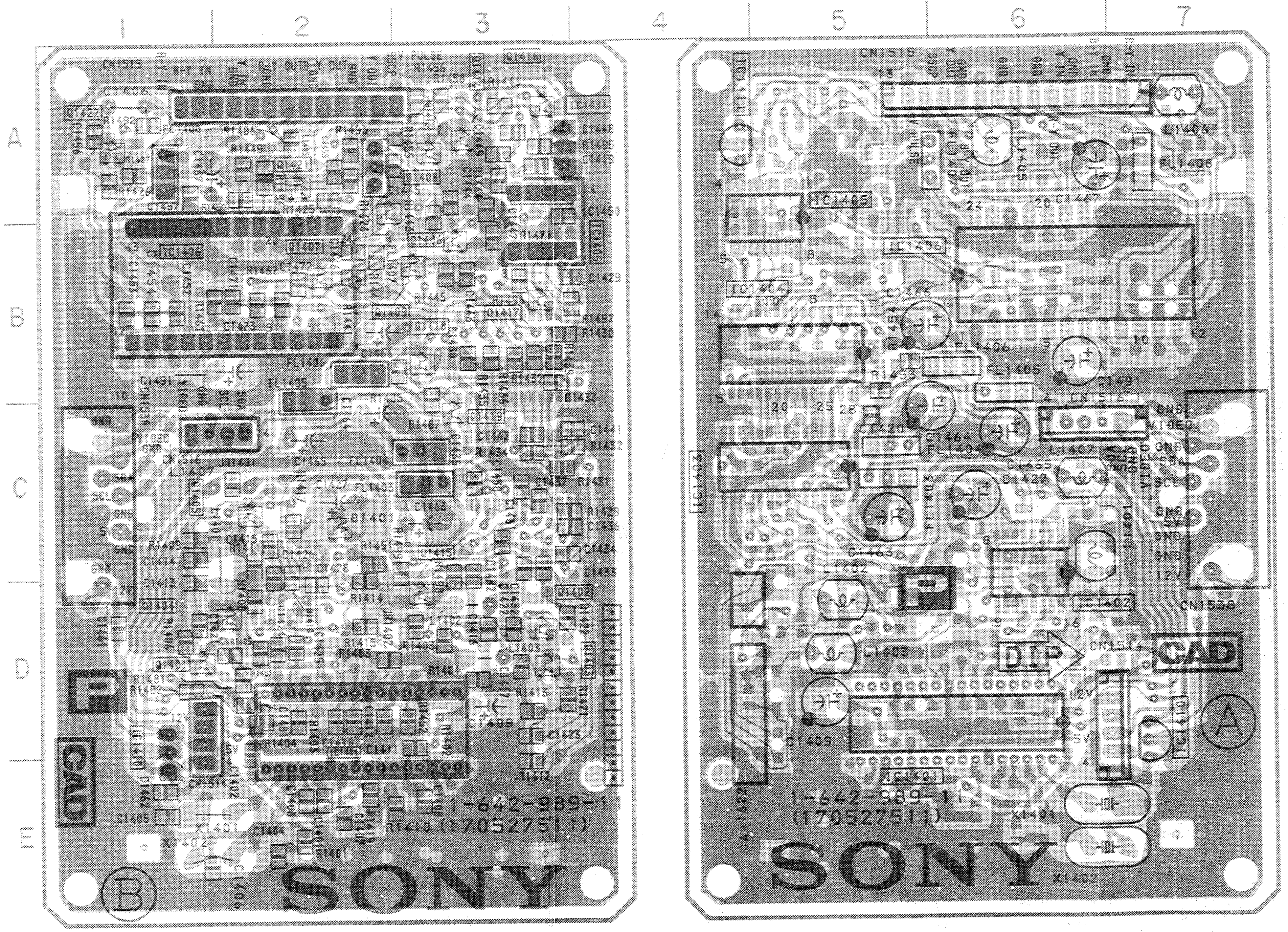


— D1 Board —
(KV-E3431D, E3431B ONLY)

IC	
IC1603	E-5
IC1801	D-3
IC1802	E-2
IC1803	C-1
TRANSISTOR	
Q1610	C-4
Q1613	C-5
Q1802	C-3
Q1803	C-3
Q1804	D-3
Q1805	C-3
Q1806	C-3
Q1807	C-3
Q1808	B-2
Q1809	B-1
Q1810	D-2
Q1811	C-2
Q1812	E-4
Q1813	D-2
DIODE	
D1603	C-5
D1801	E-4
D1802	E-2
D1803	D-3
D1804	B-3
D1805	B-3
D1806	C-2
D1807	B-1
D1808	B-2
D1809	B-2
D1810	B-2
D1811	A-2
D1812	D-2

P [PICTURE IN PICTURE]

— P Board —

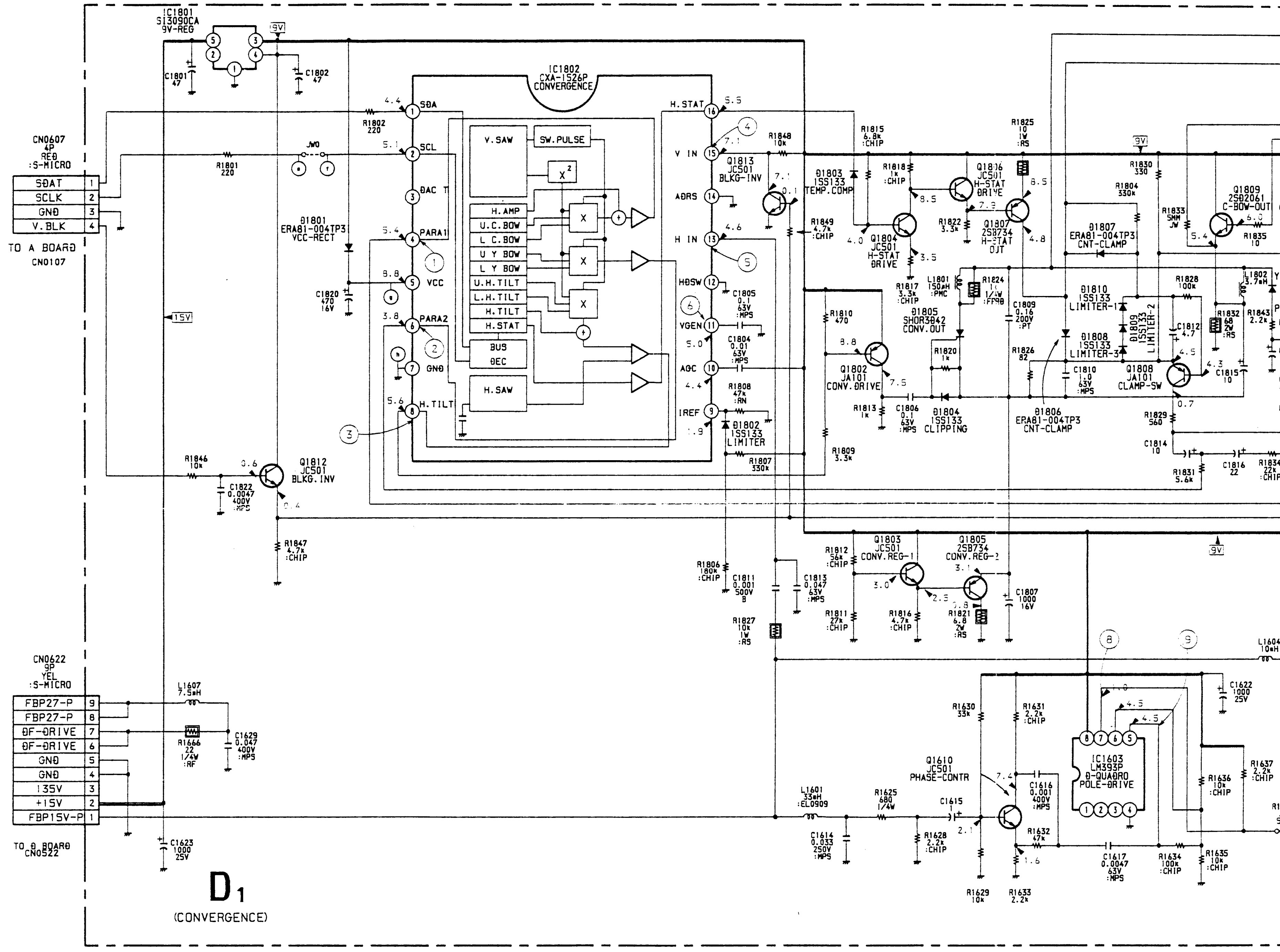


— P Board —

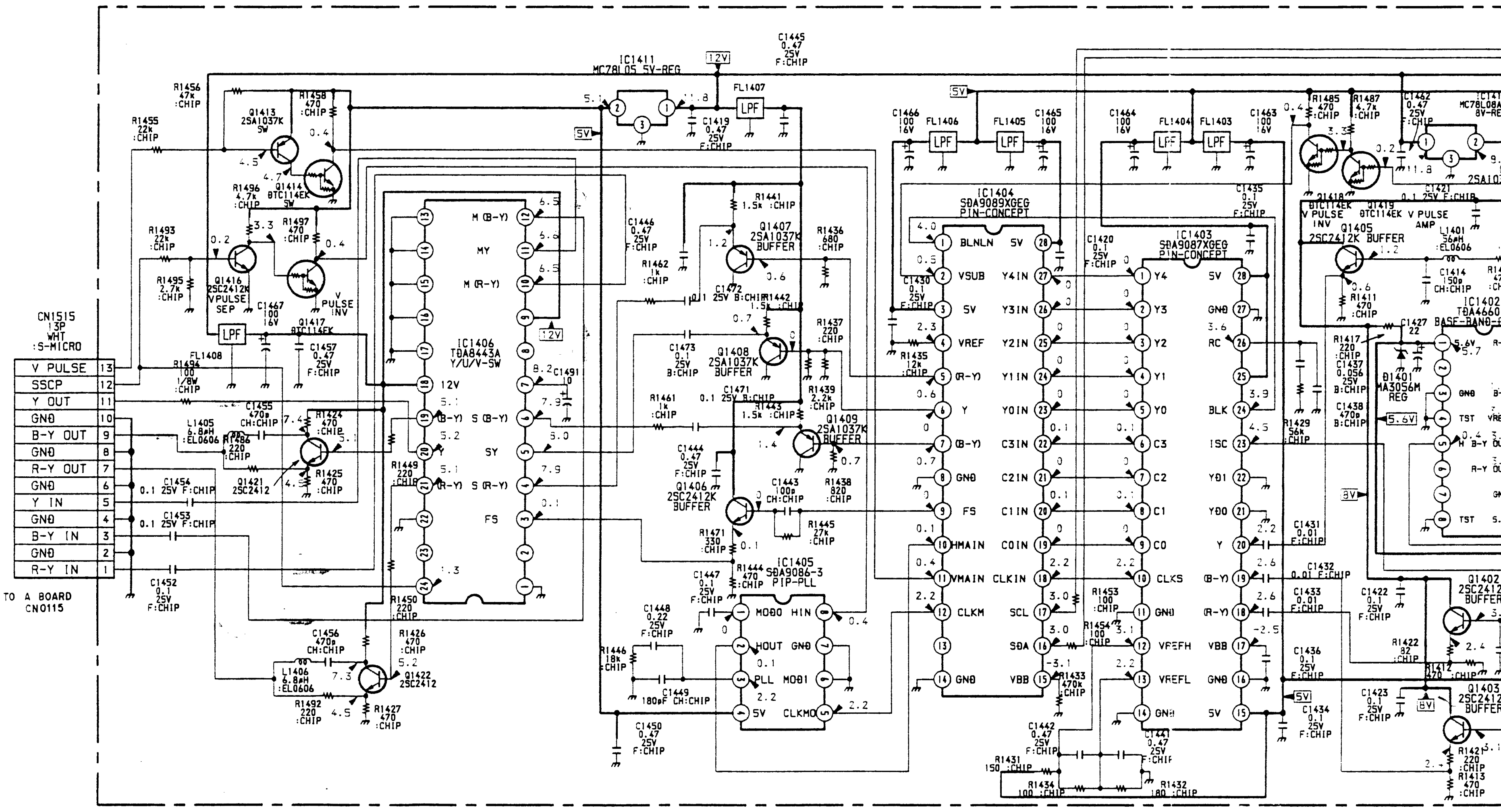
IC	
IC1401	D-2
IC1402	D-6
IC1403	C-5
IC1404	B-5
IC1405	B-3
IC1406	B-2
IC1410	D-1
IC1411	A-4
TRANSISTOR	
Q1401	D-1
Q1402	D-3
Q1403	D-3
Q1404	D-2
Q1405	C-2
Q1406	B-3
Q1407	B-2
Q1408	A-2
Q1409	B-3
Q1413	A-3
Q1414	A-3
Q1415	D-3
Q1416	A-3
Q1417	B-3
Q1418	B-3
Q1419	C-3
Q1421	A-2
Q1422	A-1
DIODE	
D1401	C-2

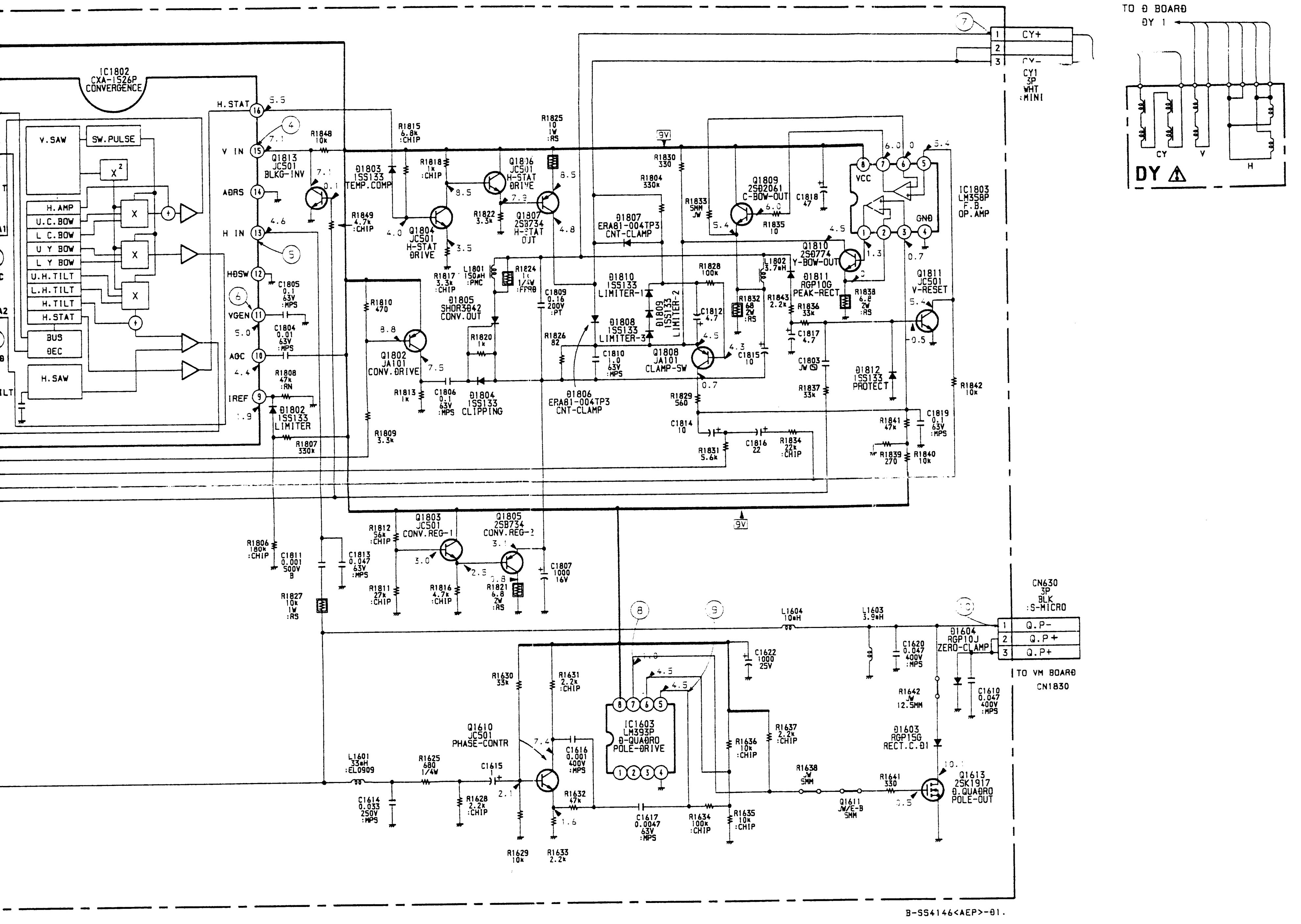
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

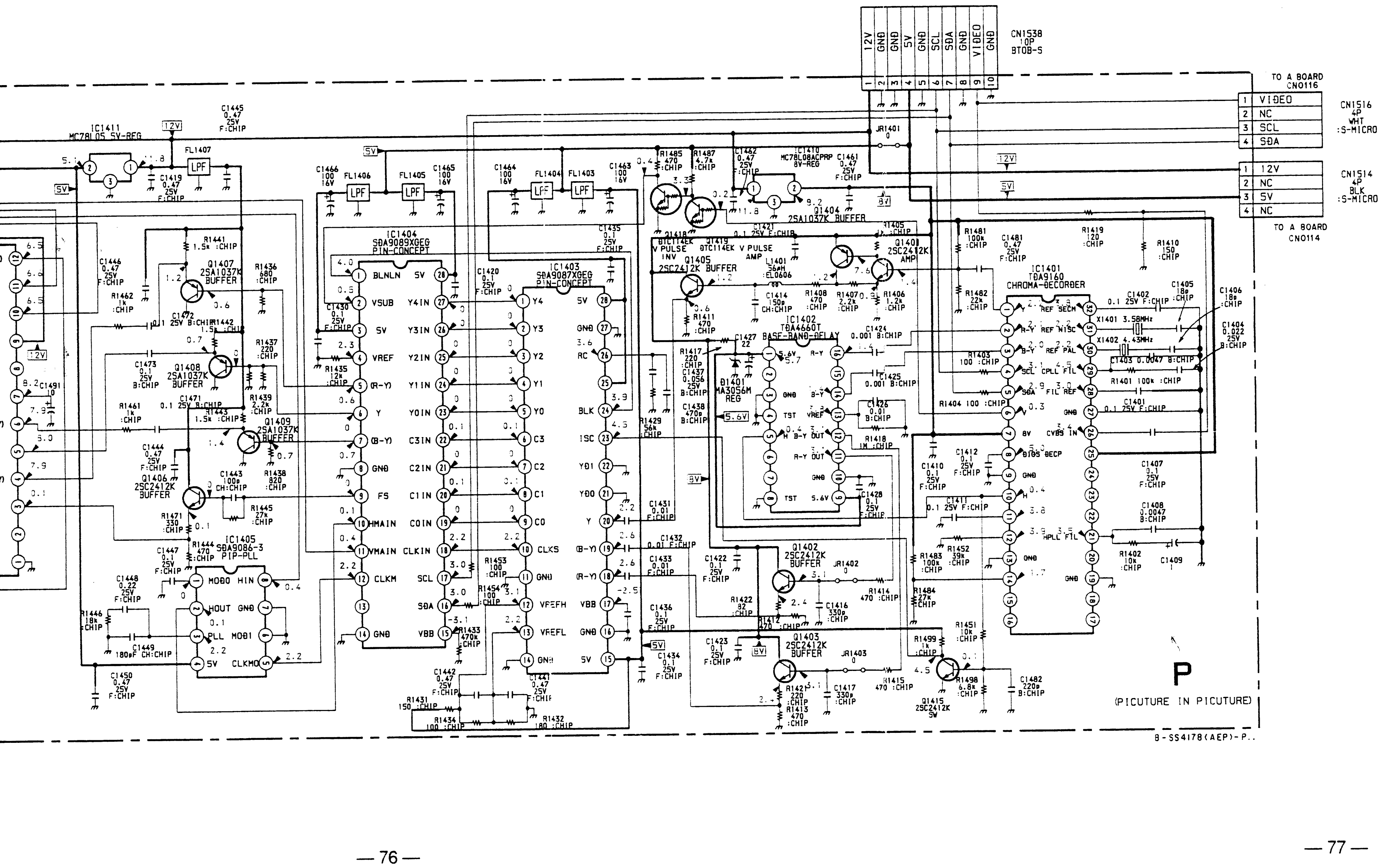
34 inch only


IC1801 SI3090CA 9V-REG
C1801 47
C1802 47
IC1802 CXA-1526P CONVERGENCE
SDA
SCL
DAC T
PARA1
VCC
PARA2
GND
H.TILT
V.SAW
SW.PULSE
H.AMP
U.C.BOW
L.C.BOW
U Y BOW
L Y BOW
U.H.TILT
L.H.TILT
H.TILT
H.STAT
BUS DEC
H.SAW
H.STAT
V IN
ADRS
H IN
HDSW
VGEN
AGC
IREF
R1802 220
R1801 220
JW0
D1801 ERA81-004TP3 VCC-RECT
C1820 47 16V
CN0607 4P RED :S-MICRO
SDAT
SCLK
GND
V.BLK
TO A BOARD CN0107
R1846 10k
Q1812 JC501 BLKG.INV
C1822 0.0047 400V
R1847 4.7k :CHIP
R1848 10k
Q1811 JC501 BLKG-INV
D1803 1SS133 TEMP.COMP
R1849 4.7k :CHIP
R1818 1k :CHIP
Q1813 JC501 H-STAT DRIVE
Q1816 JC501 H-STAT DRIVE
Q1804 JC501 H-STAT DRIVE
Q1807 2SB734 H-STAT OUT
R1815 6.8k :CHIP
R1822 3.3k
R1817 3.3k :CHIP
L1801 150µH :PMC
D1805 SHOR3842 CONV.OUT
R1824 1k 1/4W :FF0
C1809 0.16 200V :PT
R1820 1k
C1805 0.1 63V :MPS
C1804 0.01 63V :MPS
R1808 47k :RN
D1802 1SS133 LIMITER
R1807 330k
R1810 470
Q1802 JA101 CONV.DRIVE
R1813 1k
C1806 0.1 63V :MPS
D1804 1SS133 CLIPPING
R1809 3.3k
R1825 10 1W :RS
R1830 330
R1804 330k
D1807 ERA81-004TP3 CNT-CLAMP
R1833 5MM 1W
Q1809 2SD2061 C-BOW-OUT
R1835 10
R1828 100k
D1810 1SS133 LIMITER-1
D1809 1SS133 LIMITER-2
D1808 1SS133 LIMITER-3
R1826 82
C1810 1.0 63V :MPS
Q1808 JA101 CLAMP-SW
C1812 4.7
R1832 68 2W :RS
L1802 3.7mH
R1843 2.2k
C1815 10
D1806 ERA81-004TP3 CNT-CLAMP
R1829 560
C1814 10
R1831 5.6k
C1816 22
R1834 22k :CHIP
R1812 56k :CHIP
Q1803 JC501 CONV.REG-1
Q1805 2SB734 CONV.REG-2
R1806 180k :CHIP
C1811 0.001 500V B
C1813 0.047 63V :MPS
R1811 27k :CHIP
R1816 4.7k :CHIP
R1821 6.8 2W :RS
C1807 1000 16V
R1827 10k 1W :RS
CN0622 9P YEL :S-MICRO
FBP27-P
FBP27-P
DF-DRIVE
DF-DRIVE
GND
GND
135V
+15V
FBP15V-P
TO D BOARD CN0522
L1607 7.5µH
R1666 22 1/4W :RF
C1629 0.047 400V :MPS
C1623 1000 25V
L1601 33mH :EL0909
C1614 0.033 250V :MPS
R1625 680 1/4W
C1615 1
R1628 2.2k :CHIP
R1630 33k
R1631 2.2k :CHIP
Q1610 JC501 PHASE-CONTR
C1616 0.001 400V :MPS
R1632 47k
R1629 10k
R1633 2.2k
IC1603 LM393P D-QUADRO POLE-DRIVE
C1617 0.0047 63V :MPS
R1634 100k :CHIP
R1635 10k :CHIP
R1636 10k :CHIP
R1637 2.2k :CHIP
C1622 1000 25V
L1604 10mH
9V
15V

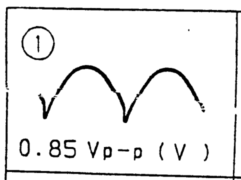
D₁
(CONVERGENCE)

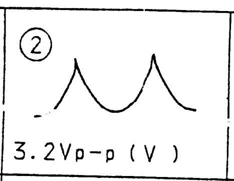

IC1411 MC78L05 5V-REG
12V
C1445 0.47 25V F:CHIP
FL1407 LPF
C1419 0.47 25V F:CHIP
R1456 47k :CHIP
R1455 22k :CHIP
Q1413 2SA1037K SW
R1458 470 :CHIP
R1496 4.7k :CHIP
Q1414 DTC114EK SW
R1497 470 :CHIP
R1493 22k :CHIP
R1495 2.7k :CHIP
Q1416 2SC2412K VPULSE SEP
Q1417 DTC114EK V PULSE INV
C1467 100 16V
C1457 0.47 25V F:CHIP
CN1515 13P WHT :S-MICRO
V PULSE
SSCP
Y OUT
GND
B-Y OUT
GND
R-Y OUT
GND
Y IN
GND
B-Y IN
GND
R-Y IN
TO A BOARD CN0115
FL1408 LPF
R1494 100 1/8W :CHIP
L1405 6.8µH :EL0606
C1455 470p CH:CHIP
R1486 220 :CHIP
Q1421 2SC2412
R1424 470 :CHIP
R1425 470 :CHIP
C1454 0.1 25V F:CHIP
C1453 0.1 25V F:CHIP
C1452 0.1 25V F:CHIP
C1456 470p CH:CHIP
L1406 6.8µH :EL0606
R1429 220 :CHIP
R1426 470 :CHIP
Q1422 2SC2412
R1427 470 :CHIP
IC1406 TDA8443A Y/U/V-SW
M (B-Y)
MY
M (R-Y)
12V
S (B-Y)
SY
S (R-Y)
FS
R1449 220 :CHIP
R1450 220 :CHIP
C1491 10
C1446 0.47 25V F:CHIP
R1462 1k :CHIP
R1441 1.5k :CHIP
Q1407 2SA1037K BUFFER
R1436 680 :CHIP
C1472 0.1 25V B:CHIP
R1442 1.5k :CHIP
C1473 0.1 25V B:CHIP
Q1408 2SA1037K BUFFER
R1443 1.5k :CHIP
C1471 0.1 25V B:CHIP
R1437 220 :CHIP
R1439 2.2k :CHIP
Q1409 2SA1037K BUFFER
R1461 1k :CHIP
C1444 0.47 25V F:CHIP
Q1406 2SC2412K BUFFER
C1443 100p CH:CHIP
R1438 820 :CHIP
R1471 330 :CHIP
R1445 27k :CHIP
IC1405 SDA9086-3 PIP-PLL
R1444 470 :CHIP
C1447 0.1 25V F:CHIP
C1448 0.22 25V F:CHIP
R1446 18k :CHIP
C1449 180pF CH:CHIP
C1450 0.47 25V F:CHIP
MODO
HOUT
PLL
5V
HIN
GND
MOD1
CLKMO
C1466 100 16V
FL1406 LPF
FL1405 LPF
C1465 100 16V
C1464 100 16V
FL1404 LPF
FL1403 LPF
C1463 100 16V
IC1404 SDA9089XGEG PIP-CONCEPT
BLNLN
VSUB
5V
VREF
(R-Y)
Y
(B-Y)
GND
FS
HMAIN
VMAIN
CLKM
GND
Y4IN
Y3IN
Y2IN
Y1IN
Y0IN
C3IN
C2IN
C1IN
C0IN
CLKIN
SCL
SDA
VBB
C1430 0.1 25V F:CHIP
R1435 12k :CHIP
IC1403 SDA9087XGEG PIN-CONCEPT
Y4
Y3
Y2
Y1
Y0
C3
C2
C1
C0
CLKS
GND
VREFH
VREFL
GND
RC
BLK
ISC
YD1
YD0
Y
(B-Y)
(R-Y)
VBB
C1420 0.1 25V F:CHIP
C1435 0.1 25V F:CHIP
R1453 100 :CHIP
R1454 100 :CHIP
R1433 470k :CHIP
C1442 0.47 25V F:CHIP
C1441 0.47 25V F:CHIP
R1431 150 :CHIP
R1434 100 :CHIP
R1432 180 :CHIP
C1431 0.01 F:CHIP
C1432 0.01 F:CHIP
C1433 0.01 F:CHIP
C1436 0.1 25V F:CHIP
C1434 0.1 25V F:CHIP
R1485 470 :CHIP
R1487 4.7k :CHIP
C1462 0.47 25V F:CHIP
Q1418 DTC114EK V PULSE INV
Q1419 DTC114EK V PULSE AMP
Q1405 2SC2412K BUFFER
C1421 0.1 25V F:CHIP
L1401 56µH :EL0606
C1414 150p CH:CHIP
R1411 470 :CHIP
C1427 22
R1417 220 :CHIP
C1437 0.056 25V B:CHIP
D1401 MA3056M REG
C1428 470p B:CHIP
R1429 56k :CHIP
C1422 0.1 25V F:CHIP
C1423 0.1 25V F:CHIP
R1422 82 :CHIP
R1412 470
R1421 220 :CHIP
R1413 470 :CHIP
Q1402 2SC2412 BUFFER
Q1403 2SC2412 BUFFER
5V
5.6V
8V
9V

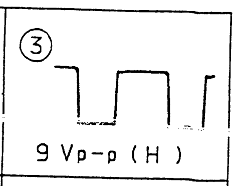

IC1802
CXA-1526P
CONVERGENCE
V.SAW
SW.PULSE
H.AMP
U.C.BOW
L.C.BOW
U Y BOW
L Y BOW
U.H.TILT
L.H.TILT
H.TILT
H.STAT
BUS
BEC
H.SAW
H.STAT
V IN
ADRS
H IN
HBSW
VGEN
AGC
IREF
Q1813
JC501
BLKG-INV
Q1803
1SS133
TEMP.COMP
Q1804
JC501
H-STAT
DRIVE
Q1806
JC501
H-STAT
DRIVE
Q1807
2SB734
H-STAT
OUT
Q1805
SHOR3842
CONV.OUT
Q1802
JA101
CONV.DRIVE
Q1804
1SS133
CLIPPING
Q1807
ERA81-004TP3
CNT-CLAMP
Q1810
1SS133
LIMITER-1
Q1808
1SS133
LIMITER-3
Q1809
1SS133
LIMITER-2
Q1808
JA101
CLAMP-SW
Q1806
ERA81-004TP3
CNT-CLAMP
Q1809
2SB2061
C-BOW-OUT
Q1810
2SB774
Y-BOW-OUT
Q1811
RGP10G
PEAK-RECT
Q1812
1SS133
PROTECT
Q1811
JC501
V-RESET
IC1803
LM358P
F.B.
OP.AMP
VCC
GND
Q1802
1SS133
LIMITER
Q1803
JC501
CONV.REG-1
Q1805
2SB734
CONV.REG-2
CY+
CY-
CY1
3P
WHT
:MINI
TO D BOARD
DY 1
CY
V
H
DY ⚠
CN630
3P
BLK
:S-MICRO
Q.P-
Q.P+
Q.P+
TO VM BOARD
CN1830
Q1604
RGP10J
ZERO-CLAMP
Q1603
RGP15G
RECT.C.B1
Q1613
2SK1917
D.QUADRO
POLE-OUT
Q1611
JW/E-B
5MM
IC1603
LM393P
D-QUADRO
POLE-DRIVE
Q1610
JC501
PHASE-CONTR
L1601
33μH
:EL0909
L1604
10mH
L1603
3.9mH
B-SS4146<AEP>-B1.

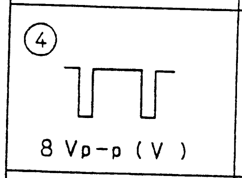

12V
GND
GND
5V
GND
SCL
SDA
GND
VIDEO
GND
CN1538
10P
BTOB-S
TO A BOARD
CN0116
VIDEO
NC
SCL
SDA
CN1516
4P
WHT
:S-MICRO
12V
NC
5V
NC
CN1514
4P
BLK
:S-MICRO
TO A BOARD
CN0114
IC1411
MC78L05 5V-REG
FL1407
LPF
FL1406
FL1405
FL1404
FL1403
IC1410
MC78L08ACPRP
8V-REG
Q1404
2SA1037K BUFFER
Q1407
2SA1037K
BUFFER
Q1408
2SA1037K
BUFFER
Q1409
2SA1037K
BUFFER
Q1406
2SC2412K
BUFFER
IC1405
SDA9086-3
PIP-PLL
MOBO HIN
HOUT GND
PLL MOB1
5V CLKMO
IC1404
SDA9089XGEG
PIP-CONCEPT
BLNLN
VSUB
SV
VREF
(R-Y)
Y
(B-Y)
GND
FS
HMAIN
VMAIN
CLKM
GND
Y4IN
Y3IN
Y2IN
Y1IN
Y0IN
C3IN
C2IN
C1IN
COIN
CLKIN
SCL
SDA
VBB
IC1403
SDA9087XGEG
PIP-CONCEPT
Y4
Y3
Y2
Y1
Y0
C3
C2
C1
C0
CLKS
GND
VFEFH
VFEFL
GND
5V
GND
RC
BLK
ISC
YD1
YD0
Y
(B-Y)
(R-Y)
VBB
DTC114EK
V PULSE
INV
Q1419
DTC114EK V PULSE
AMP
Q1405
2SC2412K BUFFER
Q1401
2SC2412K
AMP
L1401
36μH
:EL0606
IC1402
TDA4660T
BASE-BAND-DELAY
D1401
MA3056M
REG
IC1401
TDA9160
CHROMA-DECORDER
X1401 3.58MHz
X1402 4.43MHz
REF SECM
REF N1SC
REF PAL
CPLL FIL
FIL REF
CVBS IN
BIOS DECP
HPLL FIL
Q1402
2SC2412K
BUFFER
Q1403
2SC2412K
BUFFER
Q1415
2SC2412K
JR1401
JR1402
JR1403
P
(PICUTURE IN PICUTURE)
B-SS4178(AEP)-P..

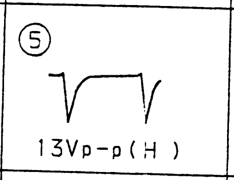
— D1 Board — (KV-E3431D, E3431B ONLY)

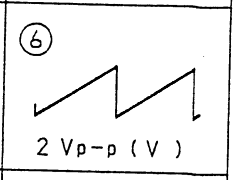

① 0.85 Vp-p (V)

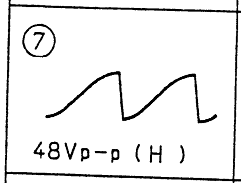

② 3.2Vp-p (V)

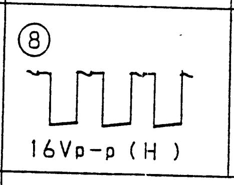

③ 9 Vp-p (H)

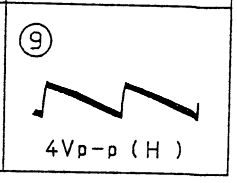

④ 8 Vp-p (V)

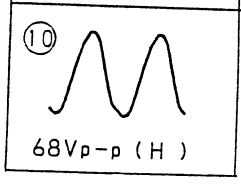

⑤ 13Vp-p (H)


⑥ 2 Vp-p (V)

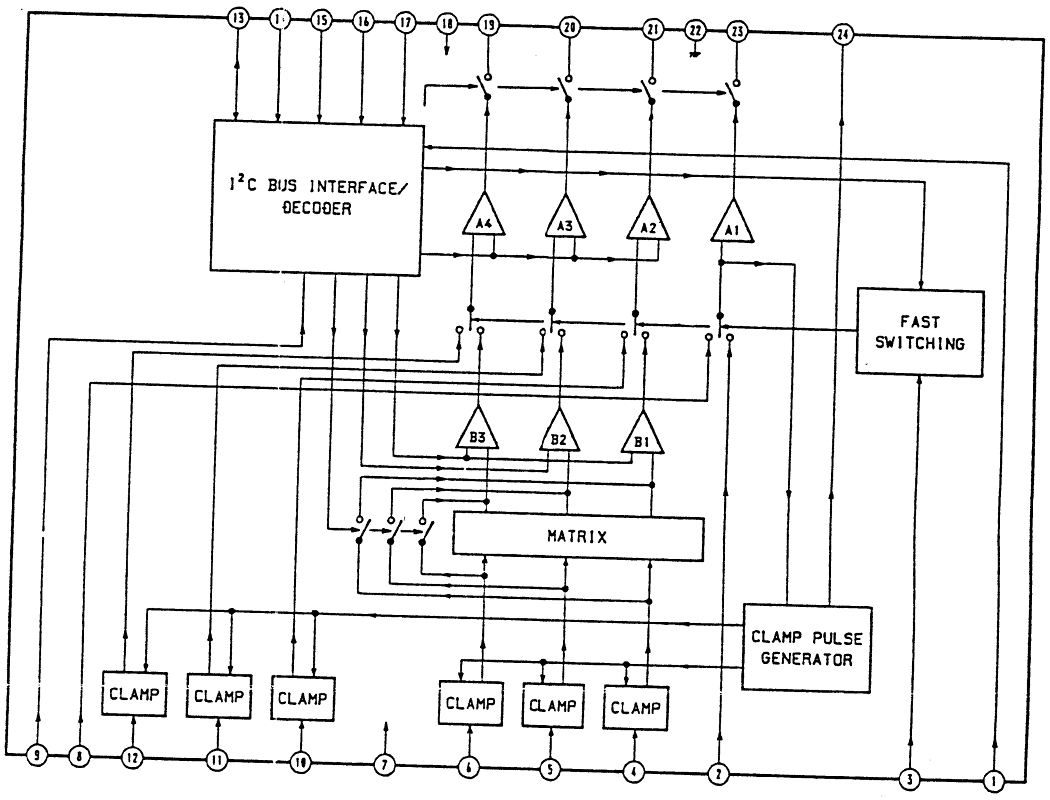

⑦ 48Vp-p (H)


⑧ 16Vp-p (H)

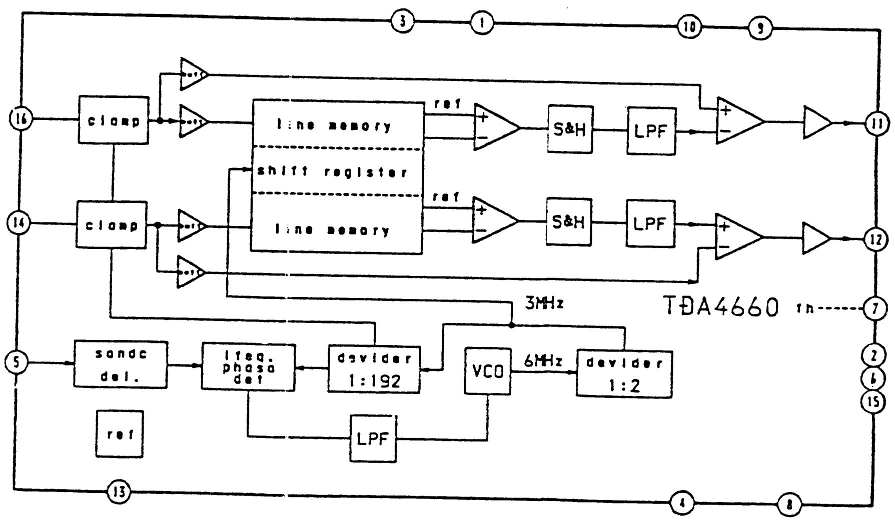

⑨ 4Vp-p (H)


⑩ 68Vp-p (H)

P BOARD IC1406 TDA8443A

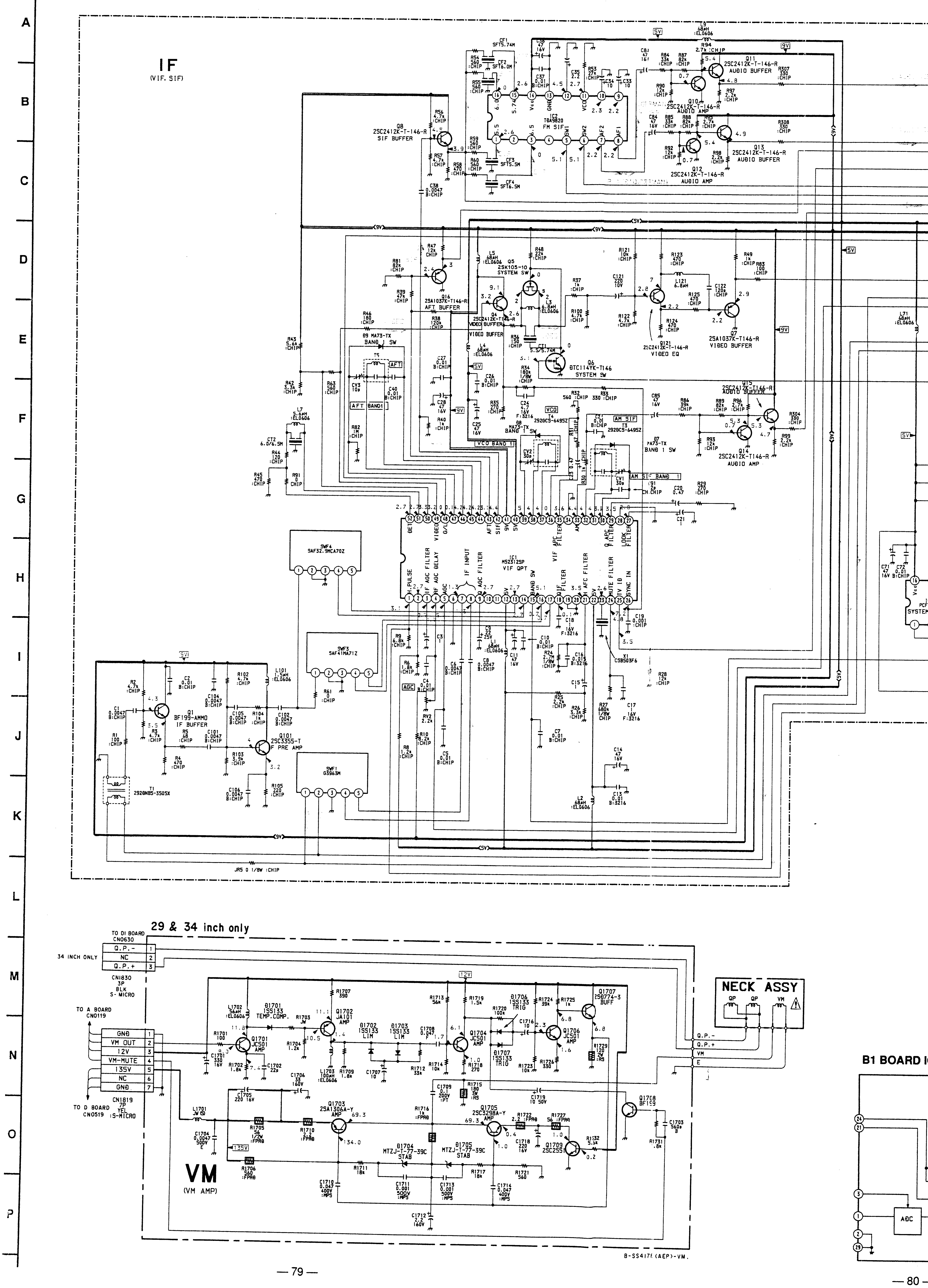

I²C BUS INTERFACE/ DECODER
A4
A3
A2
A1
FAST SWITCHING
B3
B2
B1
MATRIX
CLAMP PULSE GENERATOR
CLAMP
CLAMP
CLAMP
CLAMP
CLAMP
CLAMP
13
14
15
16
17
18
19
20
21
22
23
24
9
8
12
11
10
7
6
5
4
2
3
1

P BOARD IC1402 TDA4660

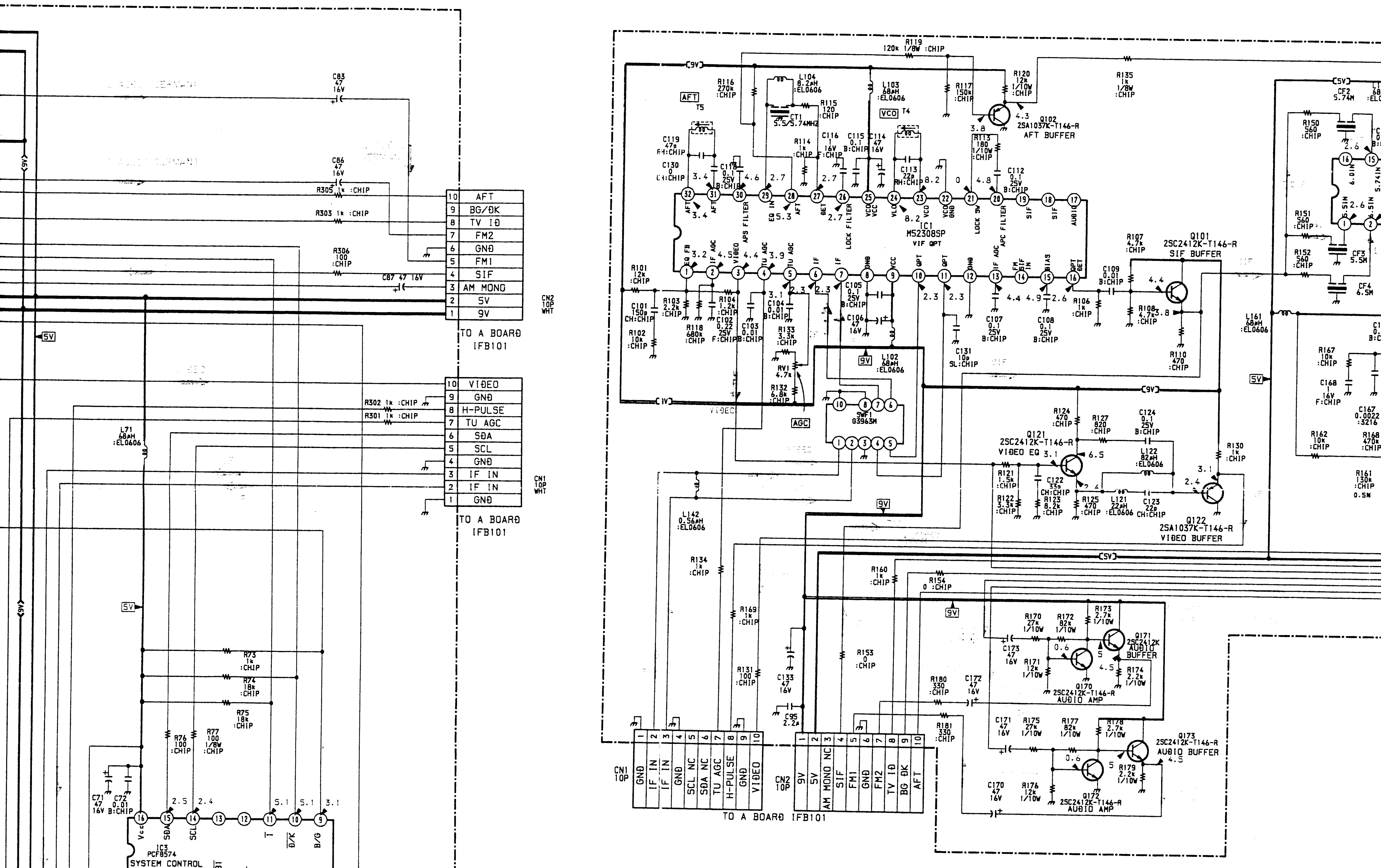

3
1
10
9
16
14
5
clamp
clamp
line memory
shift register
line memory
ref
ref
S&H
S&H
LPF
LPF
11
12
3MHz
TDA4660
fn
7
2
6
15
sandc del.
ifeq. phase det
devider 1:192
VCO
6MHz
devider 1:2
ref
LPF
13
4
8

-77-

(KV-E2531B/E2931B/E3431B ONLY)

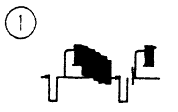
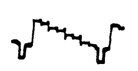
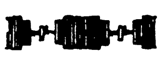
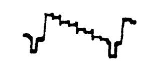

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
IF
(VIF, SIF)
IC2 TDA9820 FM SIF
IC1 M52312SP VIF OPT
Q8 2SC2412K-T-146-R SIF BUFFER
Q10 2SC2412K-T-146-R AUDIO AMP
Q11 2SC2412K-T-146-R AUDIO BUFFER
Q12 2SC2412K-T-146-R AUDIO AMP
Q13 2SC2412K-T-146-R AUDIO BUFFER
Q16 2SA1037K-T146-R AFT BUFFER
Q5 2SK105-10 SYSTEM SW
Q4 2SC2412K-T146-R VIDEO BUFFER
Q6 DTC114YK-T146 SYSTEM SW
Q121 2SC2412K-T-146-R VIDEO EQ
Q7 2SA1037K-T146-R VIDEO BUFFER
Q15 2SC2412K-T-146-R AUDIO BUFFER
Q14 2SC2412K-T-146-R AUDIO AMP
Q1 BF199-AMMO IF BUFFER
Q101 2SC3355-T IF PRE AMP
SWF4 SAF32.9MCA70Z
SWF3 SAF41MA71Z
SWF1 G3963M
T1 2920NBS-3505X
X1 CSB503F6
CF1 SFT5.74M
CF2 SFT6.0M
CF3 SFT5.5M
CF4 SFT6.5M
AFT
AFT BAND1
VCO BAND 1
AM SIF
AM SIF BAND 1
VCO
AGC
(9V)
(5V)
5V
9V
JR5 0 1/8W :CHIP
29 & 34 inch only
TO DI BOARD CN0630
Q.P.-
NC
Q.P.+
34 INCH ONLY
CN1830 3P BLK S-MICRO
TO A BOARD CN0119
GND
VM OUT
12V
VM-MUTE
135V
NC
GND
TO D BOARD CN0519
CN1819 7P YEL :S-MICRO
NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
VM
(VM AMP)
Q1701 JC501 AMP
Q1702 JA101 AMP
Q1703 2SA1306A-Y AMP
Q1704 JC501 AMP
Q1705 2SC3298A-Y AMP
Q1706 JC501 AMP
Q1707 2SD774-3 BUFF
Q1708 BF159
Q1709 2SC2551
D1701 1SS133 TEMP.COMP.
D1702 1SS133 LIM
D1703 1SS133 LIM
D1704 MTZJ-T-77-39C STAB
D1705 MTZJ-T-77-39C STAB
D1706 1SS133 TRIG
D1707 1SS133 TRIG
12V
135V
B1 BOARD I
ADC
B-SS417(AEP)-VM.

(KV-E2531D/E2931D/E3431D ONLY)

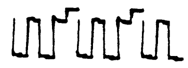
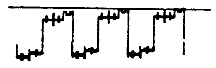
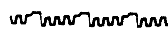
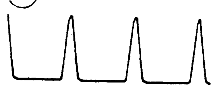


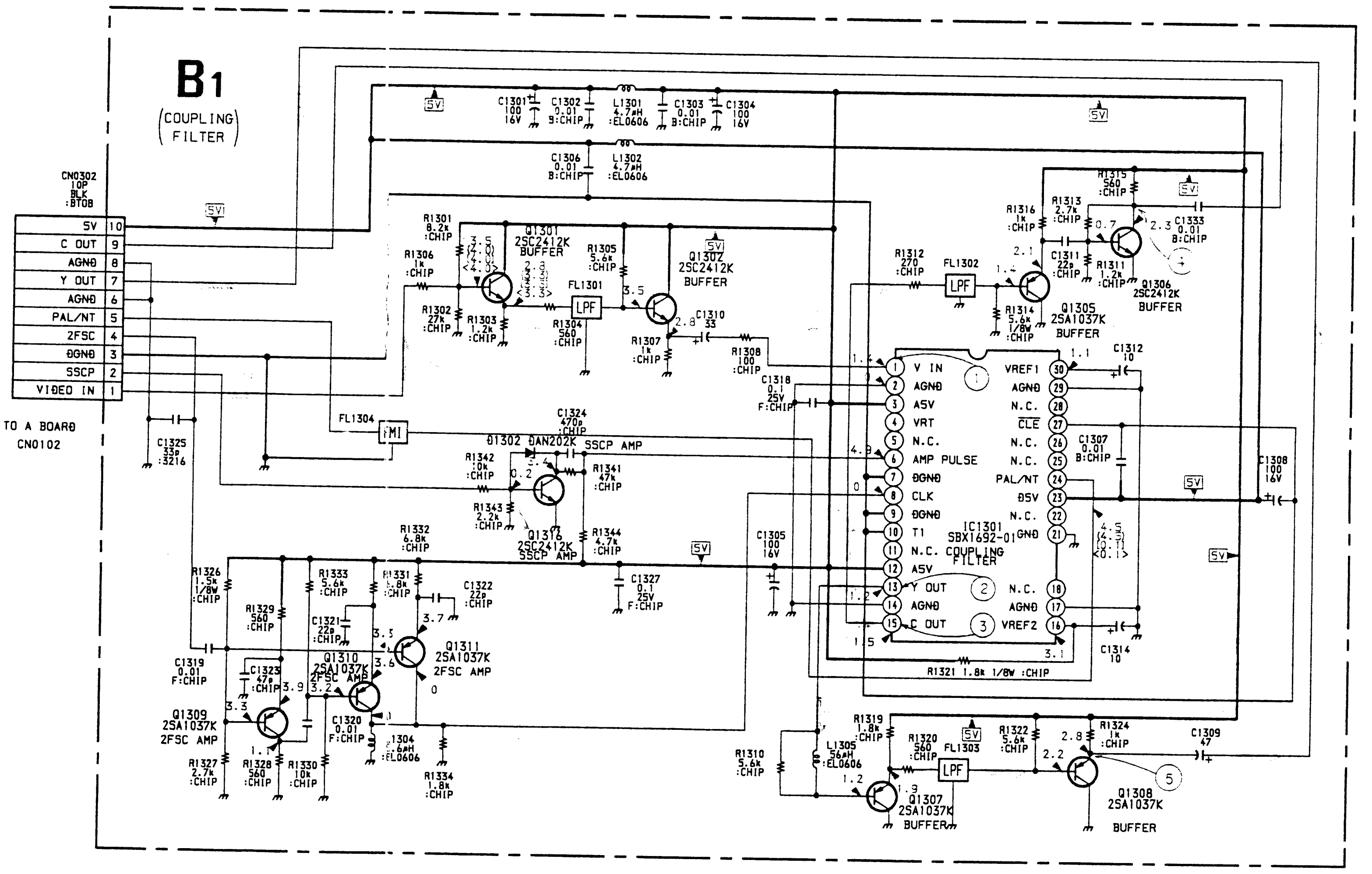
AFT
BG/DK
TV ID
FM2
GND
FM1
SIF
AM MONO
5V
9V
CN2 10P WHT
TO A BOARD IFB101
VIDEO
GND
H-PULSE
TU AGC
SDA
SCL
GND
IF IN
IF IN
GND
CN1 10P WHT
TO A BOARD IFB101
L71 68µH :EL0606
IC3 PCF8574 SYSTEM CONTROL
R73 1k :CHIP
R74 18k :CHIP
R75 18k :CHIP
R76 100 :CHIP
R77 100 1/8W :CHIP
R71 18k :CHIP
R72 18k :CHIP
C71 47 16V
C72 0.01 B:CHIP
C83 47 16V
C86 47 16V
C87 47 16V
R303 1k :CHIP
R305 1k :CHIP
R306 100 :CHIP
R301 1k :CHIP
R302 1k :CHIP
IC1 M52308SP VIF ØPT
AFT T5
VCO T4
CT1 5.5/5.74MHz
Q102 2SA1037K-T146-R AFT BUFFER
Q101 2SC2412K-T146-R SIF BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
SWF1 G3963M
RV1 4.7k
AGC
L102 68µH :EL0606
L142 0.56µH :EL0606
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
CN1 10P
CN2 10P
GND IF IN IF IN GND SCL NC SDA NC TU AGC H-PULSE GND VIDEO
9V 5V AM MONO NC SIF FM1 GND FM2 TV ID BG DK AFT
TO A BOARD IFB101
L161 68µH :EL0606
CF2 5.74M
CF3 5.5M
CF4 6.5M

— B1 Board —

①  1.5 Vp-p(H)	②  2.0 Vp-p (H)	③  1.0 Vp-p(H)
④ 1.4 Vp-p(H)	⑤  1.7 Vp-p (H)	

— C Board —

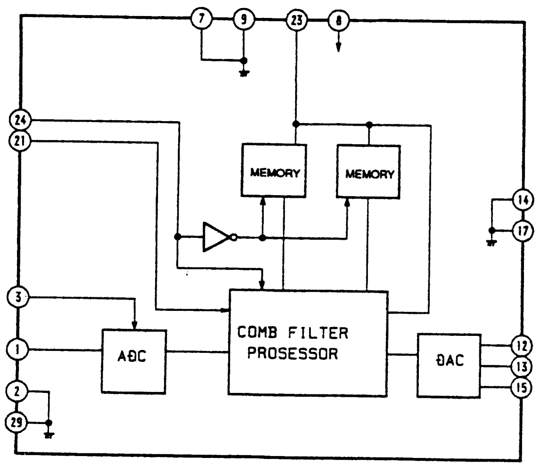
①  90.0Vp-p(H)	②  70.0Vp-p (H)	③  60.0Vp-p(H)
④  24.0Vp-p( )		



B1
(COUPLING FILTER)
CN0302 10P BLK :BTOB
5V
C OUT
AGND
Y OUT
AGND
PAL/NT
2FSC
GND
SSCP
VIDEO IN
TO A BOARD CN0102
Q1301 2SC2412K BUFFER
Q1302 2SC2412K BUFFER
FL1301 LPF
FL1302 LPF
FL1303 LPF
FL1304
Q1305 2SA1037K BUFFER
Q1306 2SC2412K BUFFER
Q1307 2SA1037K BUFFER
Q1308 2SA1037K BUFFER
Q1309 2SA1037K 2FSC AMP
Q1310 2SA1037K 2FSC AMP
Q1311 2SA1037K 2FSC AMP
Q1312 DAN202K SSCP AMP
Q1313 2SC2412K SSCP AMP
IC1301 SBX1692-01 COUPLING FILTER
V IN, AGND, ASV, VRT, N.C., AMP PULSE, GND, CLK, GND, T1, N.C., ASV, Y OUT, AGND, C OUT
VREF1, AGND, N.C., CLE, N.C., N.C., PAL/NT, DSV, N.C., GND, N.C., AGND, VREF2
R1321 1.8k 1/8W :CHIP
L1301 4.7µH :EL0606
L1302 4.7µH :EL0606
L1304 6µH :EL0606
L1305 56µH :EL0606

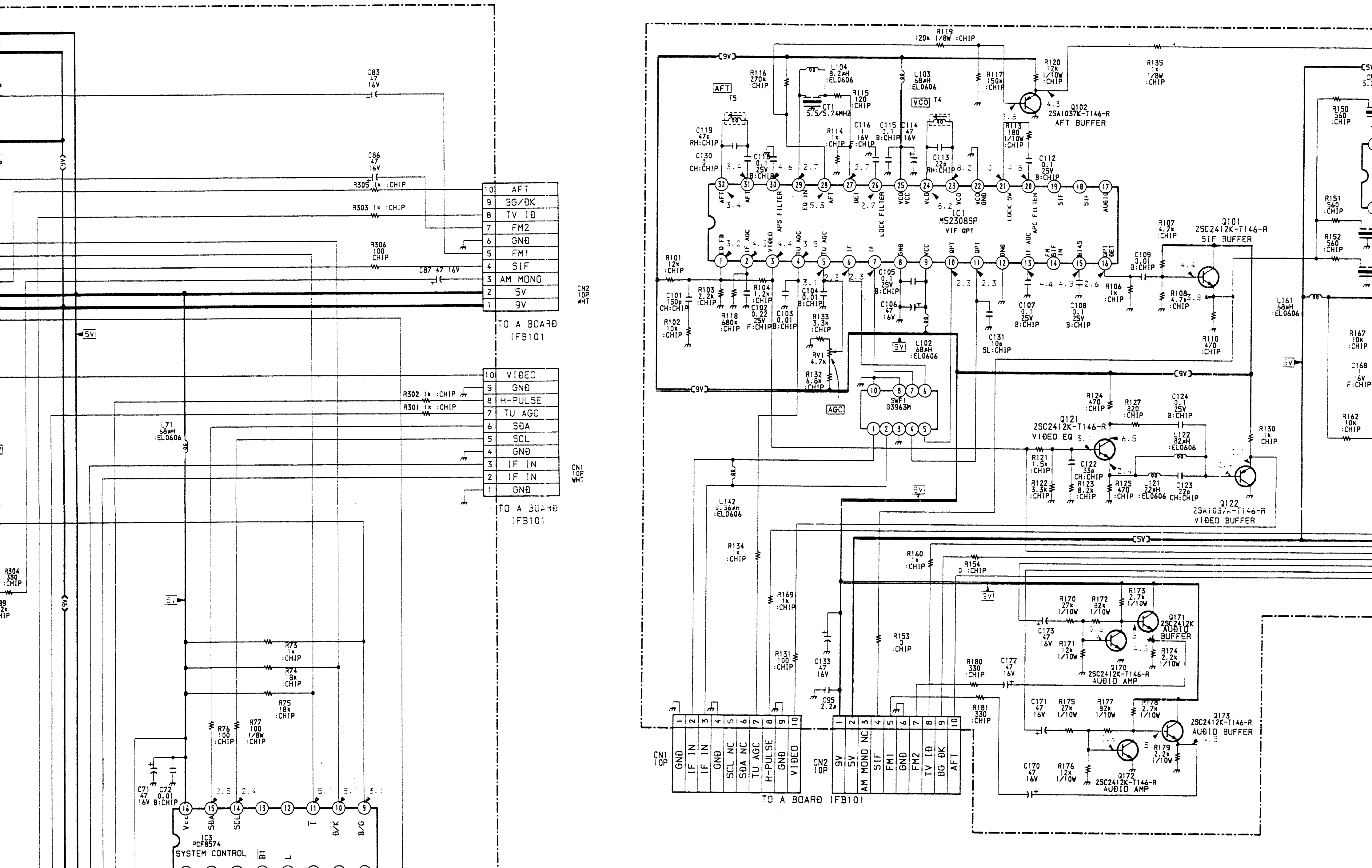
8-SS4178(AEP)-B1.

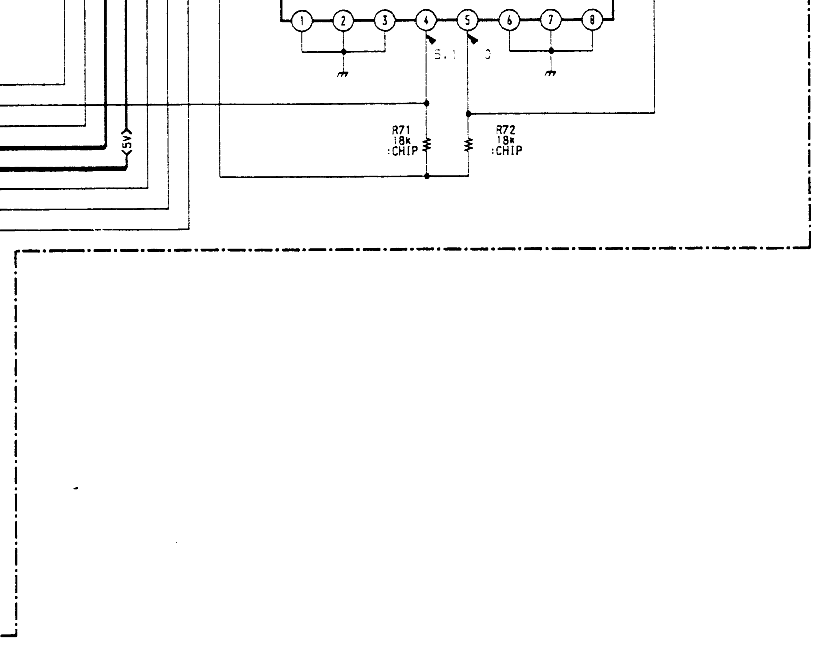
B1 BOARD IC1301 SBX1692-01



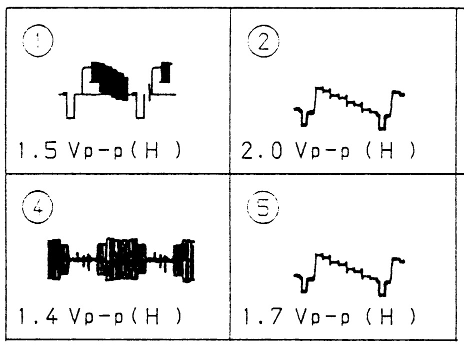
⑦ ⑨ ㉓ ⑧
㉔
㉑
MEMORY
MEMORY
⑯
⑰
③
①
②
㉙
ADC
COMB FILTER PROSESSOR
DAC
⑫
⑬
⑮

(KV-E2531D/ E2931D/ E3431D ONLY)

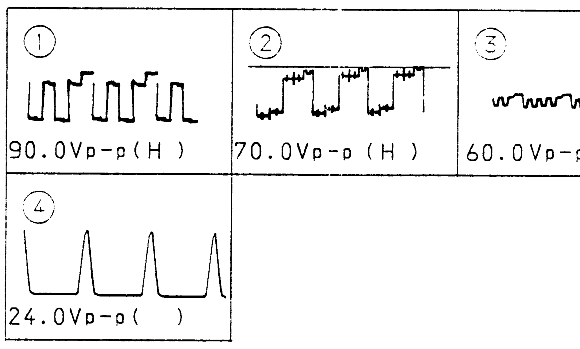

AFT
BG/DK
TV ID
FM2
GND
FM1
SIF
AM MONO
5V
9V
CN2 10P WHT
TO A BOARD IFB101
VIDEO
GND
H-PULSE
TU AGC
SDA
SCL
GND
IF IN
IF IN
GND
CN1 10P WHT
TO A BOARD IFB101
IC3 PCF8574 SYSTEM CONTROL
IC1 M52308SP VIF QPT
Q101 2SC2412K-T146-R SIF BUFFER
Q102 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
SWF1 G3963M
AGC
VCO T4
AFT T5
CT1 5.5/5.74MHZ
CN1 10P
CN2 10P
TO A BOARD IFB101

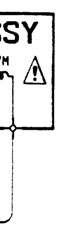


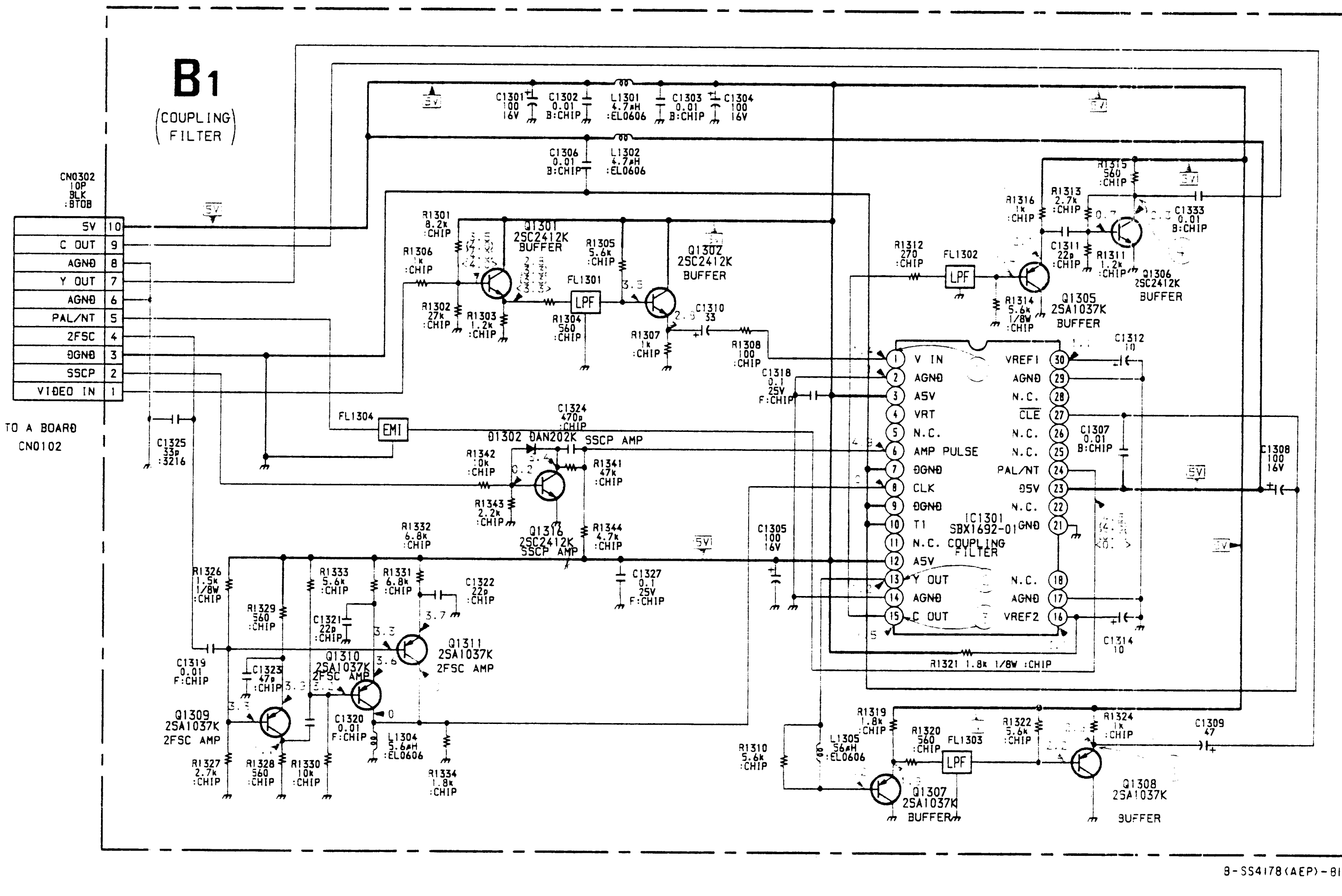
— B1 Board —



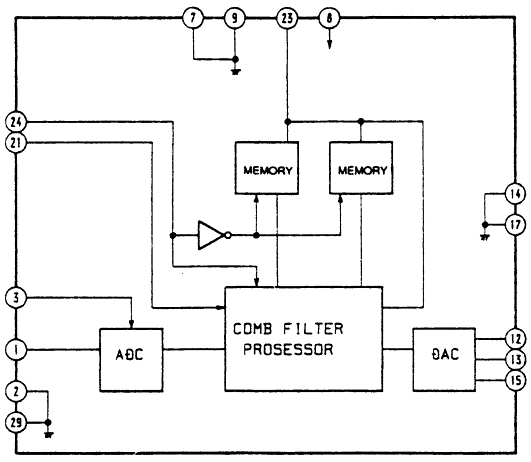
— C Board —

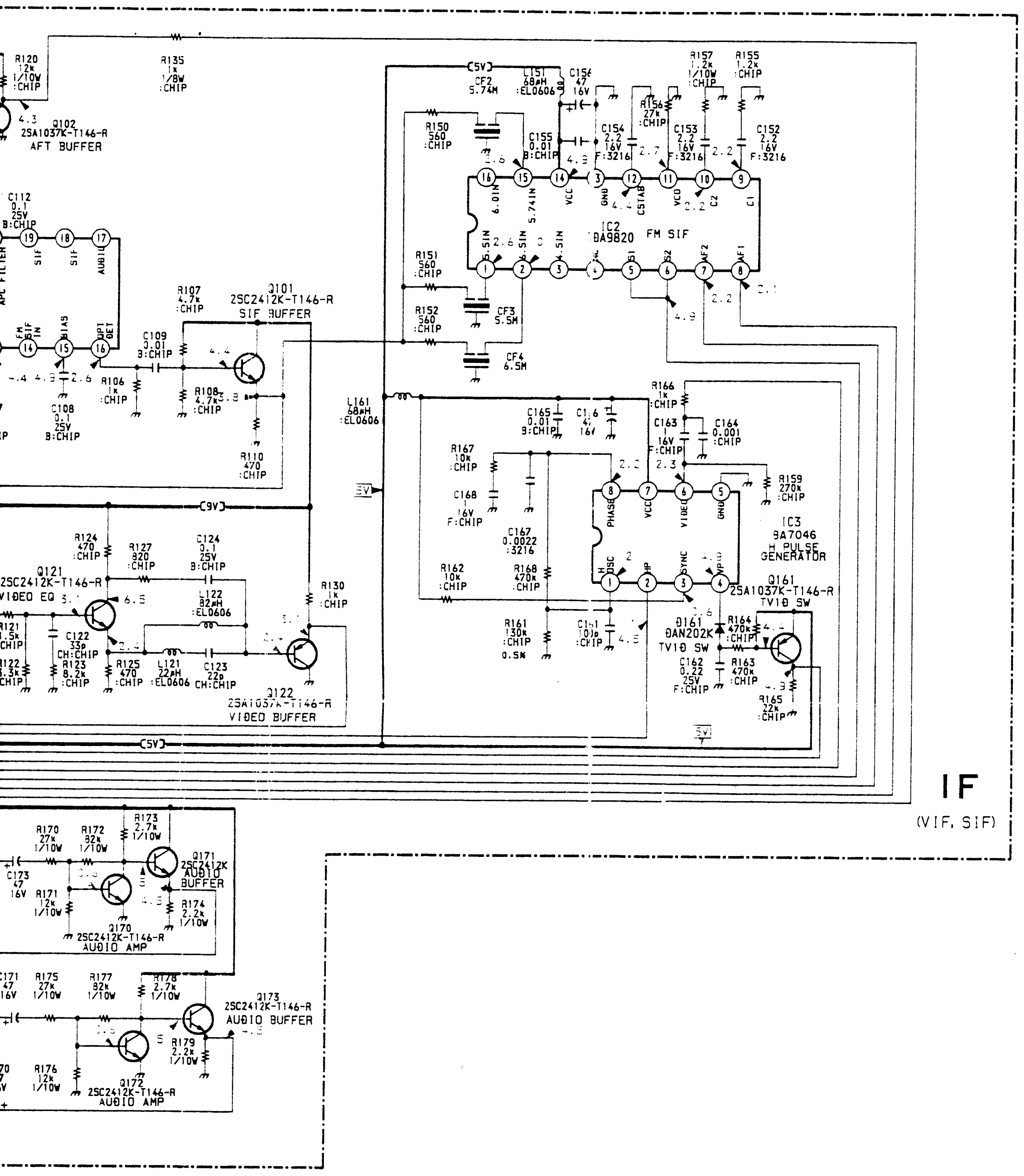




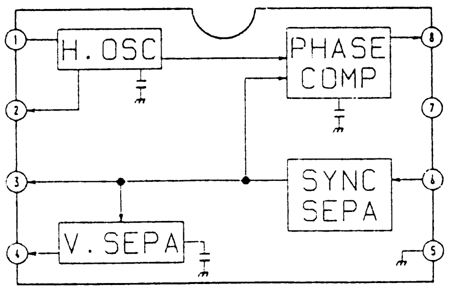

B1
(COUPLING FILTER)
CN0302 10P BLK :BTOB
5V
C OUT
AGND
Y OUT
AGND
PAL/NT
2FSC
DGND
SSCP
VIDEO IN
TO A BOARD CN0102
Q1301 2SC2412K BUFFER
Q1302 2SC2412K BUFFER
Q1302 DAN202K SSCP AMP
Q1316 2SC2412K SSCP AMP
Q1309 2SA1037K 2FSC AMP
Q1310 2SA1037K 2FSC AMP
Q1311 2SA1037K 2FSC AMP
Q1305 2SA1037K BUFFER
Q1306 2SC2412K BUFFER
Q1307 2SA1037K BUFFER
Q1308 2SA1037K BUFFER
IC1301 SBX1692-01 COUPLING FILTER
FL1301 LPF
FL1302 LPF
FL1303 LPF
FL1304 EMI
R1321 1.8k 1/8W :CHIP

B1 BOARD IC1301 SBX1692-01

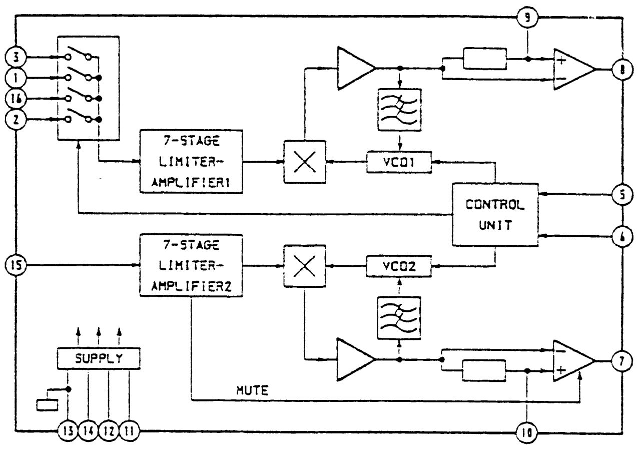

MEMORY
MEMORY
COMB FILTER PROSESSOR
ADC
DAC
7
9
23
8
24
21
14
17
3
1
2
29
12
13
15


IF
(VIF, SIF)
IC2 BA9820 FM SIF
IC3 BA7046 H PULSE GENERATOR
Q101 2SC2412K-T146-R SIF BUFFER
Q102 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
Q161 2SA1037K-T146-R TV10 SW
D161 DAN202K TV10 SW
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
5V
9V

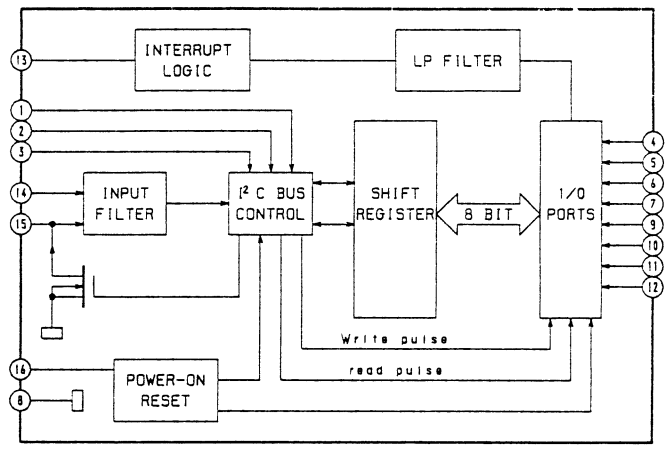
IF BOARD IC3 BA-7046 (KV-E2531D/ E2931D/ E3431D)


H. OSC
PHASE COMP
SYNC SEPA
V. SEPA

IF BOARD IC2 TDA9820


7-STAGE LIMITER-AMPLIFIER1
VCO1
CONTROL UNIT
7-STAGE LIMITER-AMPLIFIER2
VCO2
SUPPLY
MUTE

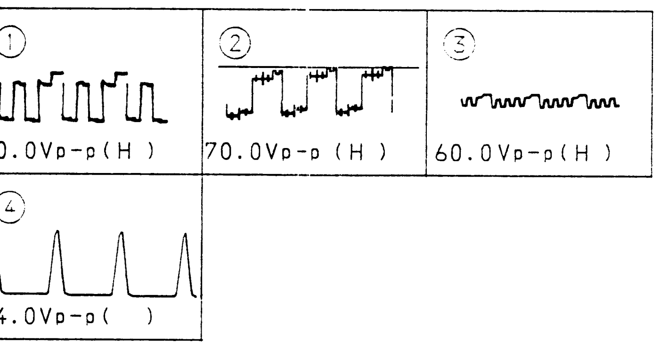
IF BOARD IC3 PCF8574 (KV-E2531B/ E2931B/ E3431B)

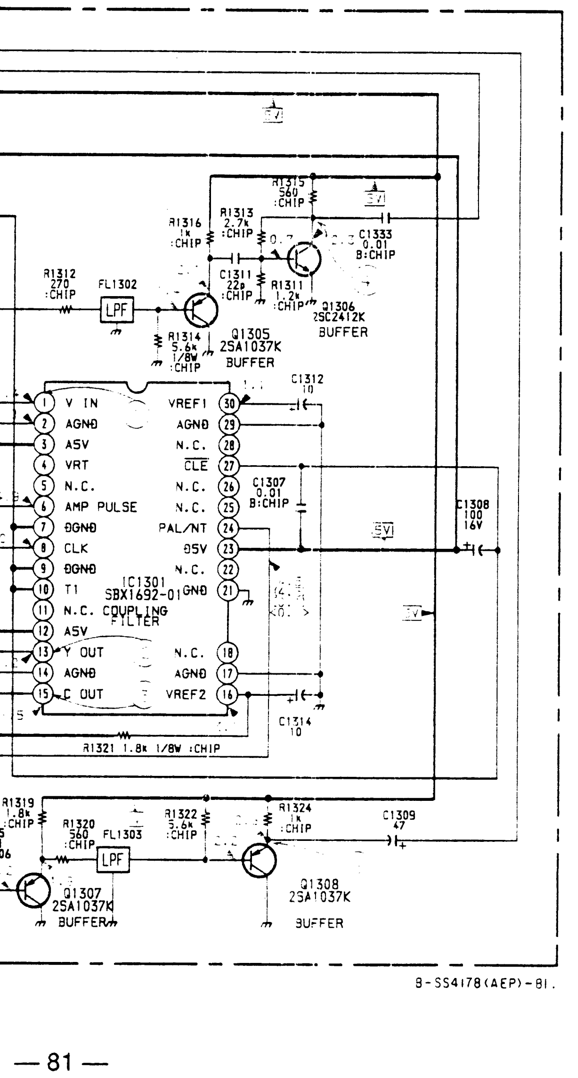

INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
Write pulse
read pulse
POWER-ON RESET

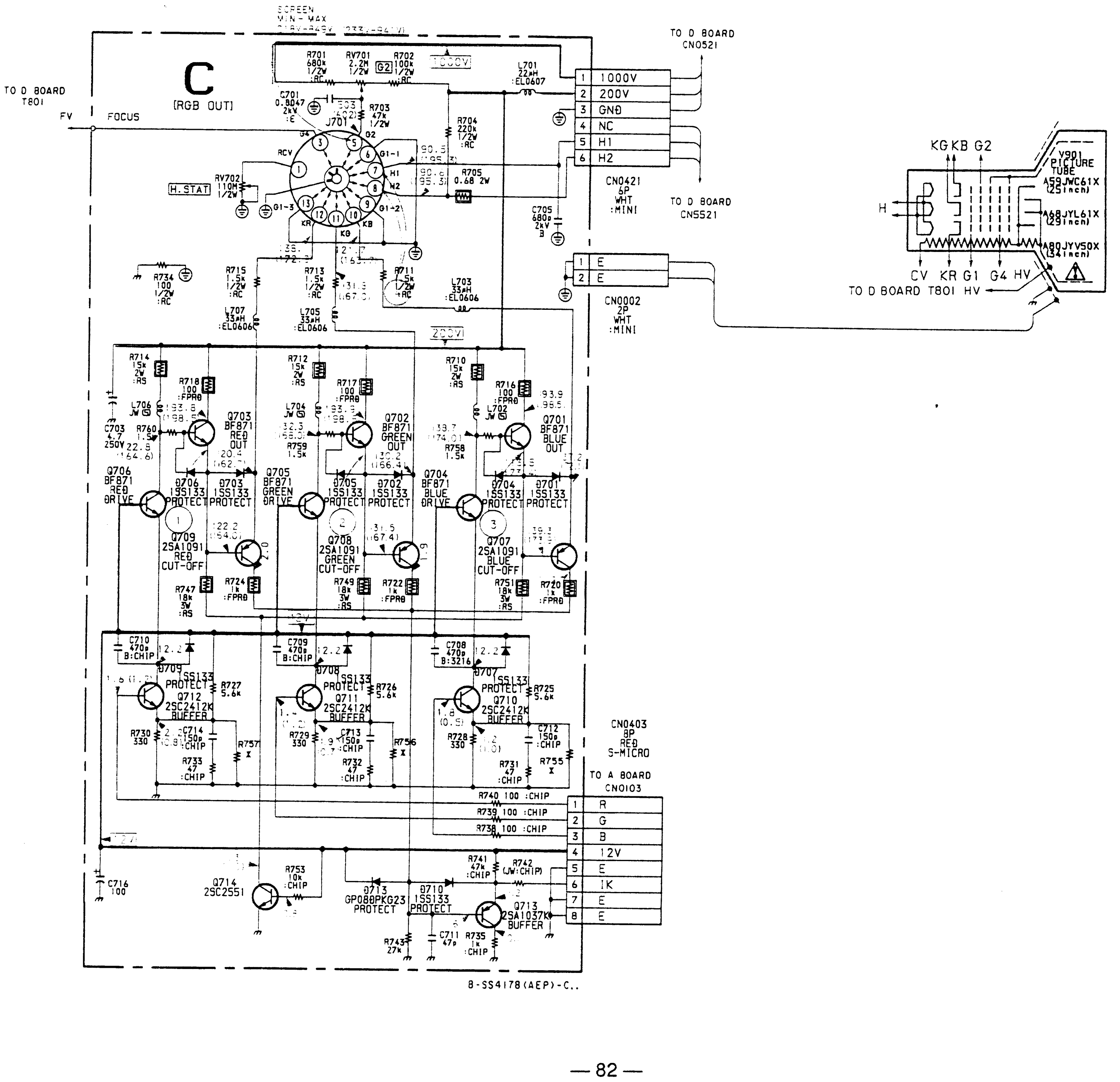
C BOARD : ✱ MARK

	KV-E2531D KV-E2531B		KV-E2931D KV-E2931B		KV-E3431D KV-E3431B	
R755	6.8K	1/10W	2.2K	1/10W	4.7K	1/10W
R756	6.8K	1/10W	2.2K	1/10W	4.7K	1/10W
R757	6.8K	1/10W	2.2K	1/10W	4.7K	1/10W

- C Board —

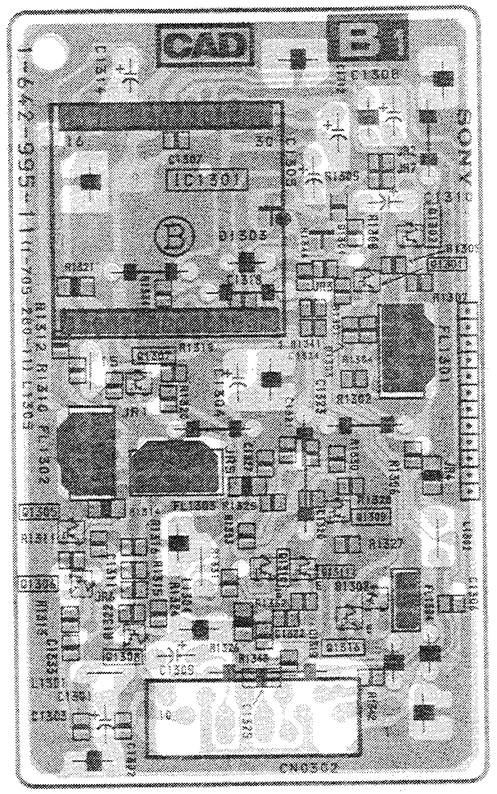



IC1301 SBX1692-01 COUPLING FILTER
Q1305 2SA1037K BUFFER
Q1306 2SC2412K BUFFER
Q1307 2SA1037K BUFFER
Q1308 2SA1037K BUFFER
FL1302 LPF
FL1303 LPF
V IN
AGND
ASV
VRT
N.C.
AMP PULSE
DGND
CLK
T1
Y OUT
C OUT
VREF1
CLE
PAL/NT
BSV
VREF2
B-SS4178(AEP)-81


C
(RGB OUT)
SCREEN
TO D BOARD T801
FV
FOCUS
H.STAT
TO D BOARD CN0521
1000V
200V
GND
NC
H1
H2
CN0421 6P WHT :MINI
TO D BOARD CN5521
CN0002 2P WHT :MINI
Q701 BF871 BLUE OUT
Q702 BF871 GREEN OUT
Q703 BF871 RED OUT
Q704 BF871 BLUE DRIVE
Q705 BF871 GREEN DRIVE
Q706 BF871 RED DRIVE
Q707 2SA1091 BLUE CUT-OFF
Q708 2SA1091 GREEN CUT-OFF
Q709 2SA1091 RED CUT-OFF
Q710 2SC2412K BUFFER
Q711 2SC2412K BUFFER
Q712 2SC2412K BUFFER
Q713 2SA1037K BUFFER
Q714 2SC2551
D713 GP08BPKG23 PROTECT
D710 1SS133 PROTECT
CN0403 8P RED S-MICRO
TO A BOARD CN0103
R
G
B
12V
E
IK
E
E
KG KB G2
V901 PICTURE TUBE
A59JWC61X (25inch)
A68JYL61X (29inch)
A80JYV50X (34inch)
CV KR G1 G4 HV
TO D BOARD T801 HV
B-SS4178(AEP)-C

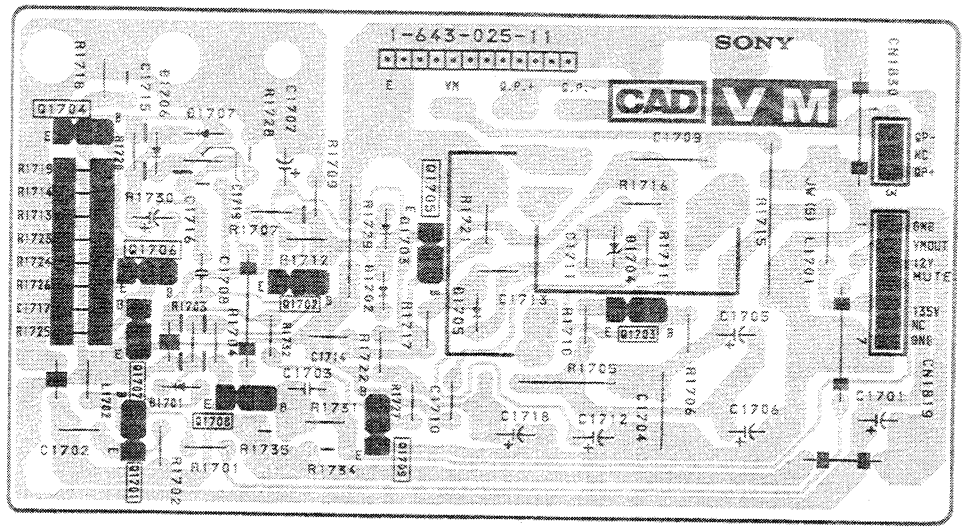
B1 [DIGITAL COMB FILTER] VM [VM AMP]

— B1 Board —


CAD
B1
SONY
IC1301
CN0302

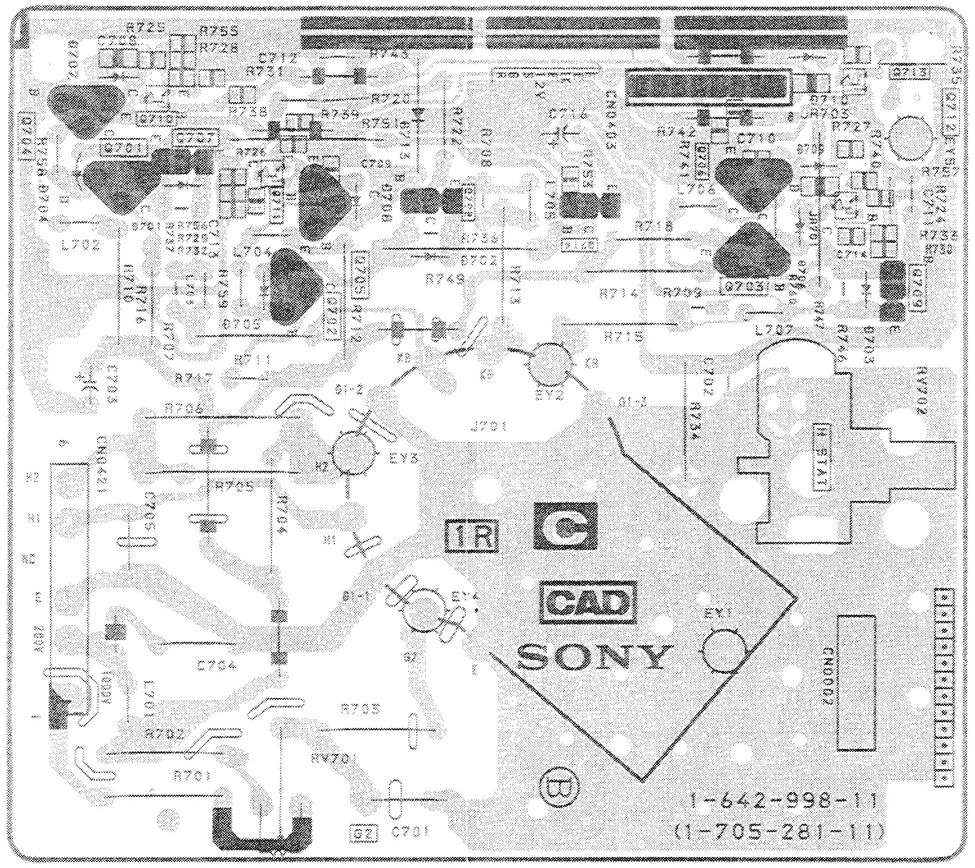
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

— VM Board — (KV-E2931D/ E3431D, E2931B/ E3431B ONLY)


1-643-025-11
SONY
CAD
VM
CN1818
CN1819

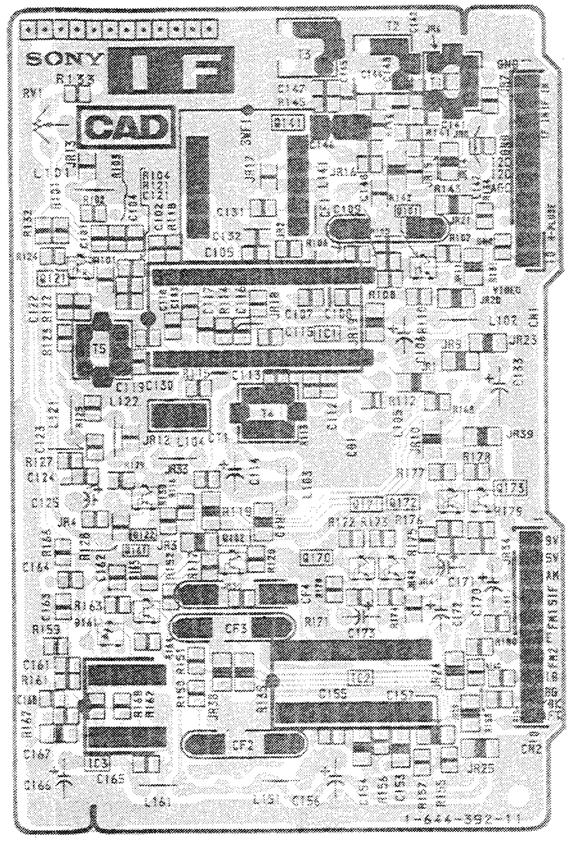
C [R.G.B OUT]

— C Board —

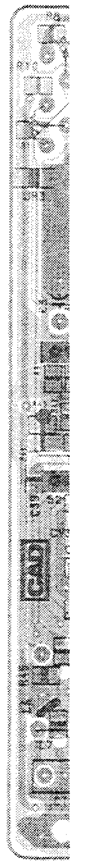

1R
C
CAD
SONY
1-642-998-11
(1-705-281-11)
H STAT
CN0002
CN0421
J701
RV701
RV702

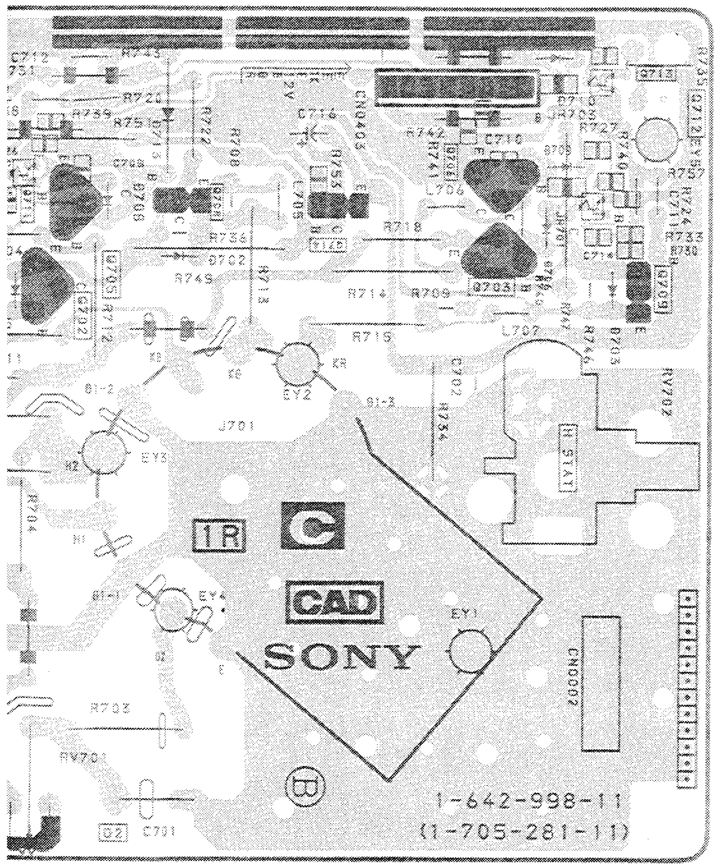
IF [VIF, SIF]

— IF Board — (KV-E2531D/ E2931D/ E3431D ONLY)


SONY
IF
CAD
IC1
IC2
IC3
1-644-392-11

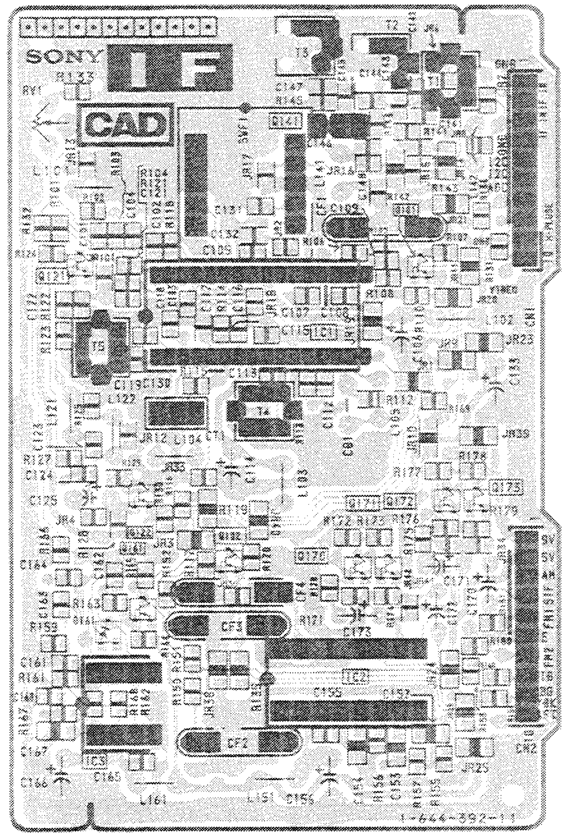
— IF Bo



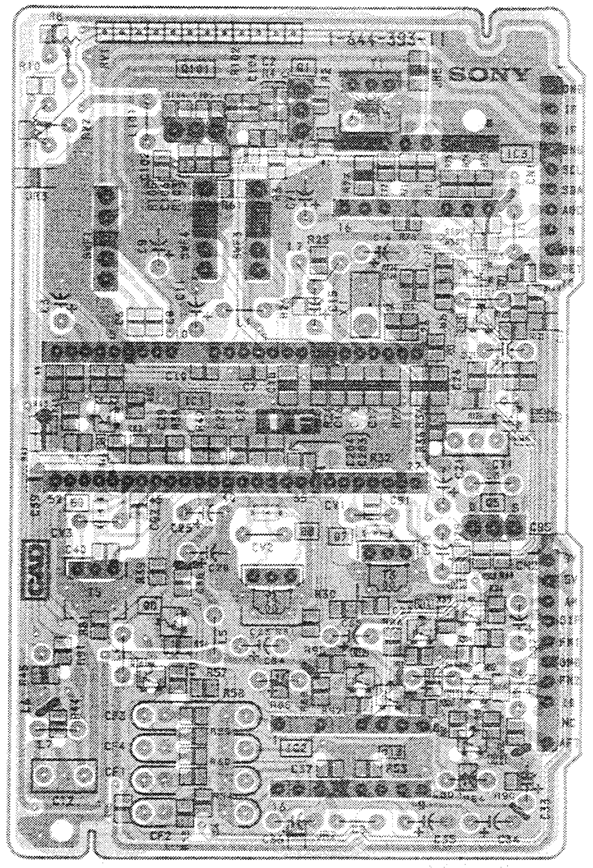

1R
C
CAD
SONY
CN0002
J701
1-642-998-11
(1-705-281-11)

IF [VIF, SIF]

—IF Board—(KV-E2531D/ E2931D/ E3431D ONLY)

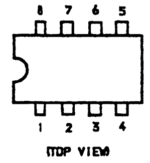

SONY
IF
CAD
IC1
IC2
CF2
CF3
1-644-392-11

—IF Board—(KV-E2531B/ E2931B/ E3431B ONLY)

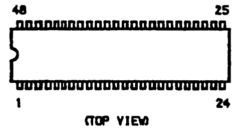

SONY
CAD
IC1
1-644-393-11

5-5. SEMICONDUCTORS

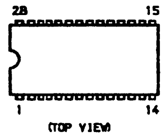
BA7046
LM393P
SDA9086-3
TDA28222M
TDA4605-3
TEA2114
X24C16P


8 7 6 5
1 2 3 4
(TOP VIEW)

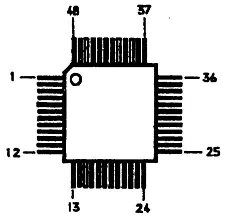
CXA1545AS
CXA1587S


48
25
1
24
(TOP VIEW)

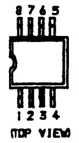
CXD1050A-15P
M27C512
SDA5231-2
TDA6612


28
15
1
14
(TOP VIEW)

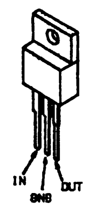
CXD2018Q


48
37
1
36
12
25
13
24

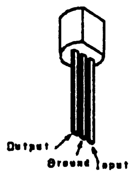
LM358D


8 7 6 5
1 2 3 4
(TOP VIEW)

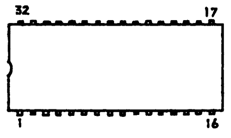
L78M05
MC7809CT
RC7805FA
RC7809FA



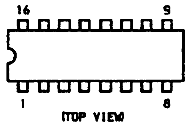
MC78L05ACPRP
MC78L08ACPRP
MC78L12ACPRP


Output
Ground
Input

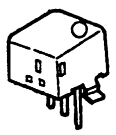
M52308SP
TDA9160


32
17
1
16
(TOP VIEW)

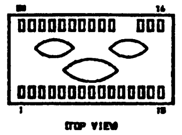
PCF8574
TDA4660V2
TDA9820


16
9
1
8
(TOP VIEW)

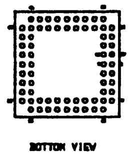
SBX1610-11



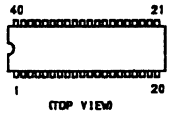
SBX1692-01



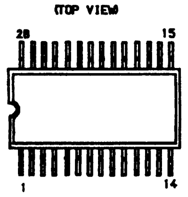
SDA30C162


BOTTOM VIEW

SDA5248C1


40
21
1
20
(TOP VIEW)

SDA9087X


(TOP VIEW)
28
15
1
14

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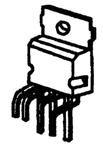
TDA8179S



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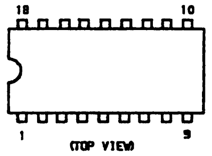
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(TOP VIEW)

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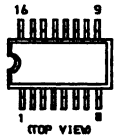
16
9
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8
(TOP VIEW)

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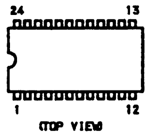
TDA9145


24
13
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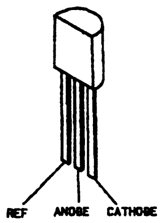
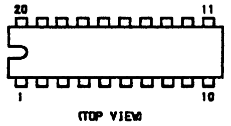
12
(TOP VIEW)

TL431CLP


REF
ANODE
CATHODE

µPD424256C-80


20
11
1
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(TOP VIEW)

BF199
JA101
JC501
2SA10910
2SA109-0
2SC25510
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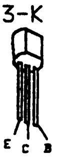
2SA733-K



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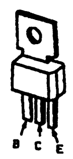

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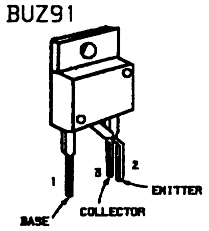
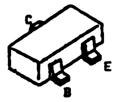

1
3
2
BASE
COLLECTOR
EMITTER

DTA124EK
DTA144EK
DTC114EK
DTC144EK
2SA1037K
2SA1162
2SA1162G
2SC1623
2SC2412K
2SC2413K-Q
2SC2712G



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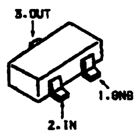
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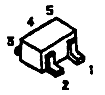
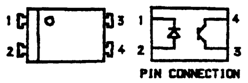
1.GND
2.IN

FMW2



SFH617G


1
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3
4
PIN CONNECTION

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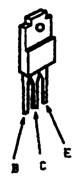

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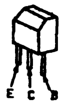

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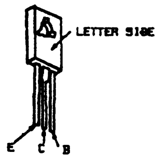
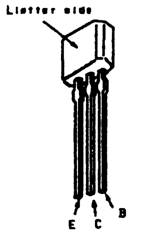
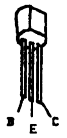

LETTER SIDE
E
C
B

2SC2785


Letter side
E
C
B

2SC3355



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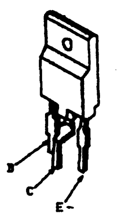
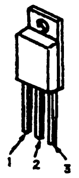


CTU-12S



DAN202K-T-146
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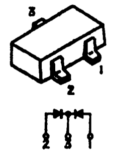

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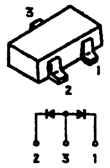

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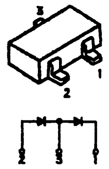

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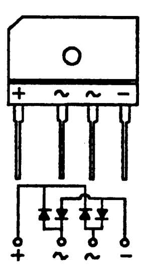

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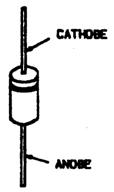
RGP02-20EL
RGP15GPKG23
R2K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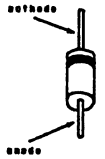
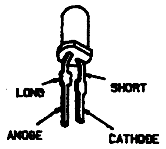
ANODE

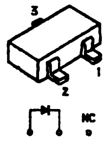
ERD29-08J


cathode
anode

LD-201VR


LONG
SHORT
ANODE
CATHODE

MA3039H-TX
MA3056M-TX
RD5.6M-B2



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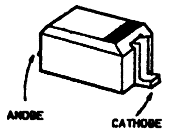
ANODE
CATHODE

MTZJ-12B
MTZJ-13C
MTZJ-30B
MTZJ-33C
MTZJ-3.6A
MTZJ-39C
MTZJ-5.6A
MTZJ-5.6B
MTZJ-6.2B
MTZJ-7.5A
MTZJ-9.1
RD12ESB2
RD5.6ESB1
RD5.6ESB2
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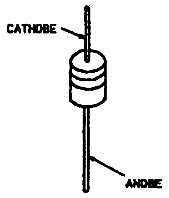
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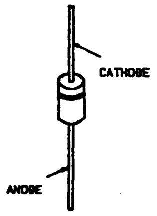
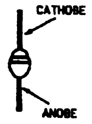

CATHODE
ANODE

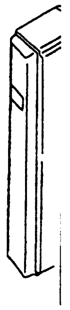
U05G


CATHODE
ANODE

NOTE:
- Items with not stocke routine se
- The const indicated column.

6-1. CHA

■ : BVTP4



REF.NO. PART

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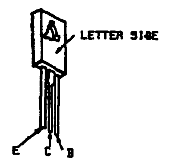
2 ∗1-64
3 4-20
4 ⚠1-57
5 ∗A-16
6 4-03
7 ⚠4-38
8 ⚠1-59
⚠1-59
9 ∗A-16
10 ∗A-16
∗A-16

2SB772-Q
2SC2688



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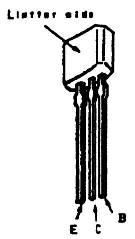

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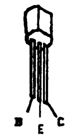

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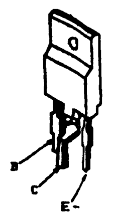
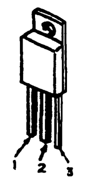


CTU-12S



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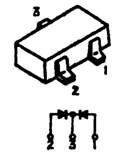

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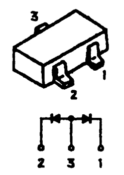

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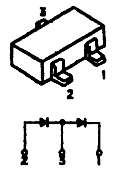

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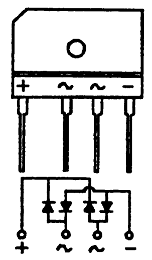

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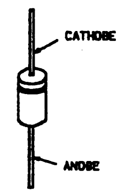
ERB44-06
GP08DPKG23
RGP02-20EL
RGP15GPKG23
R2K



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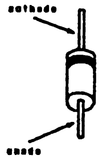
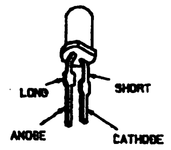
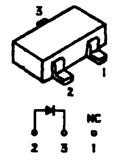


LD-201VR



MA3039H-TX
MA3056M-TX
RD5.6M-B2



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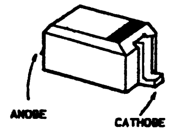

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MTZJ-13C
MTZJ-30B
MTZJ-33C
MTZJ-3.6A
MTZJ-39C
MTZJ-5.6A
MTZJ-5.6B
MTZJ-6.2B
MTZJ-7.5A
MTZJ-9.1
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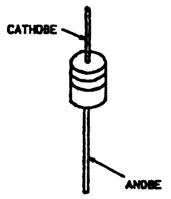
1SS133T-77



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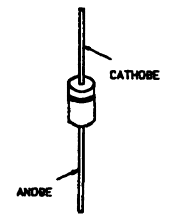
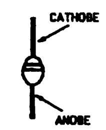


U05G



SECTION 6
EXPLODED VIEWS

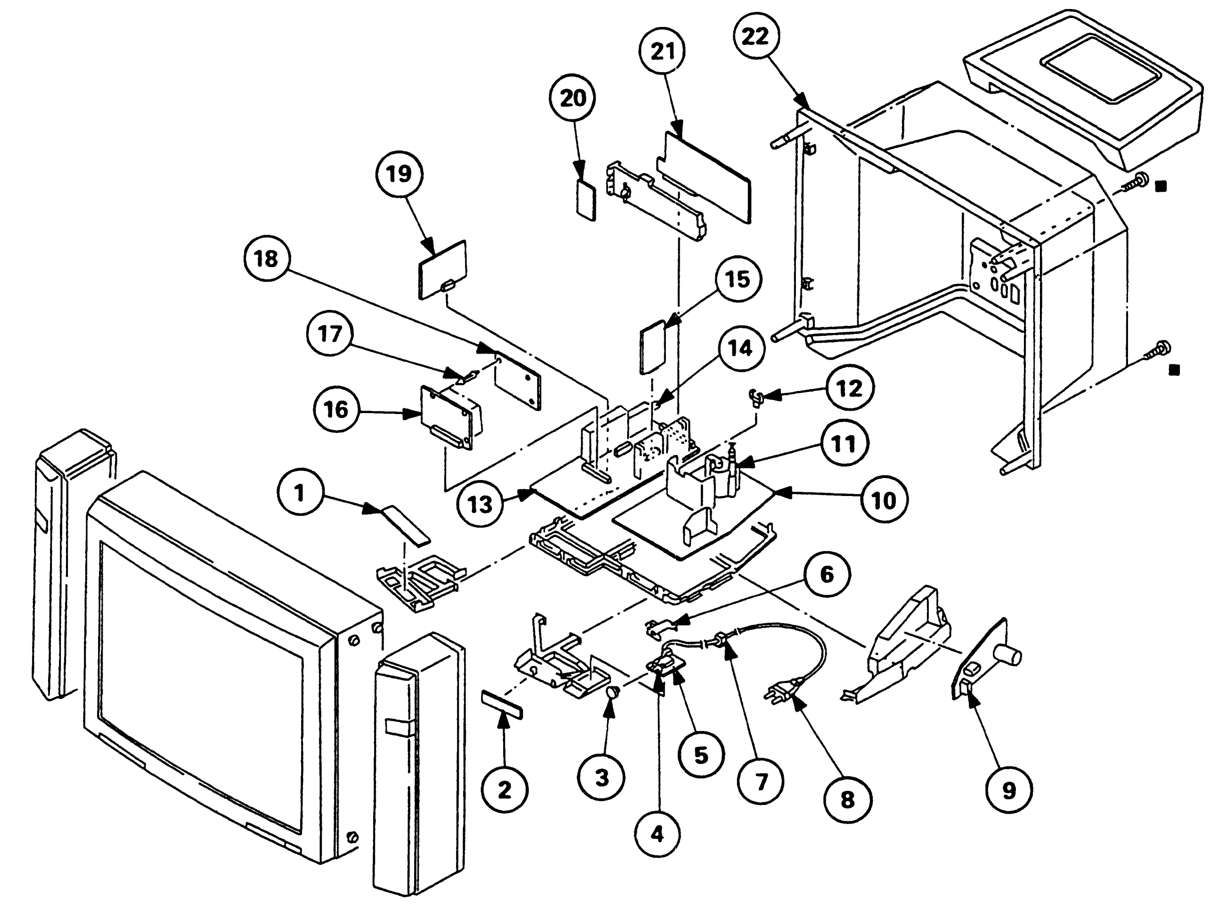
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS (KV-E2531D/ E2531B/ E2931D/ E2931B)

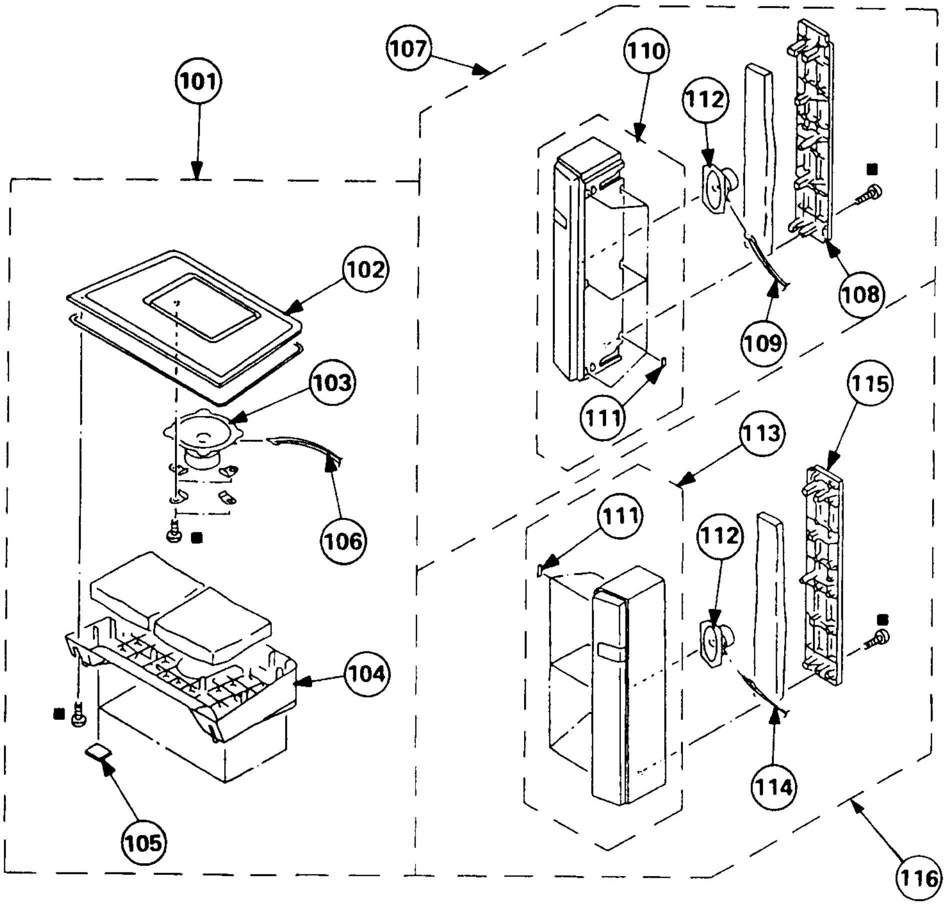
■ : BVTP4x16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-643-004-11	H1 BOARD	
2	*1-642-997-11	H2 BOARD	
3	4-201-011-01	CAP, SWITCH	
4	⚠.1-571-433-12	SWITCH, PUSH (AC POWER)	
5	*A-1624-009-A	F1 BOARD, COMPLETE	
6	4-036-633-01	COVER, POWER SWITCH	
7	⚠.4-389-201-03	HOLDER, AC CORD	
8	⚠.1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-E2531B,E2931B)	
	⚠.1-590-501-11	CORD, POWER (WITH NOISE FILTER) (KV-E2531D,E2931D)	
9	*A-1624-010-A	F2 BOARD, COMPLETE	
10	*A-1642-075-A	D BOARD, COMPLETE (KV-E2531B,E2531D)	
	*A-1642-074-A	D BOARD, COMPLETE (KV-E2931B,E2931D)	
11	⚠.1-453-118-11	TRANSFORMER ASSY, FLYBACK (UX-2600A2)	
12	*3-646-071-00	HOLDER, WIRE	
13	*A-1632-101-A	A BOARD, COMPLETE (KV-E2531B,E2931B)	
	*A-1632-090-A	A BOARD, COMPLETE (KV-E2531D,E2931D)	
14	⚠.1-693-185-11	TUNER (UV916H)	
15	*A-1620-036-A	B1 BOARD, COMPLETE	
16	*A-1635-001-A	M BOARD, COMPLETE	
17	*4-385-948-01	HOLDER, PCB	
18	*A-1645-024-A	V BOARD, COMPLETE	
19	*A-1622-005-A	P BOARD, COMPLETE	
20	*1-643-003-11	K BOARD	
21	*A-1651-033-A	J BOARD, COMPLETE	
22	4-201-017-11	COVER, REAR (KV-E2531B,E2531D)	
	4-200-026-21	COVER, REAR (KV-E2931B,E2931D)	

6-3. SPEAKER (KV-E2531D/ E2531B/ E2931D/ E2931B)

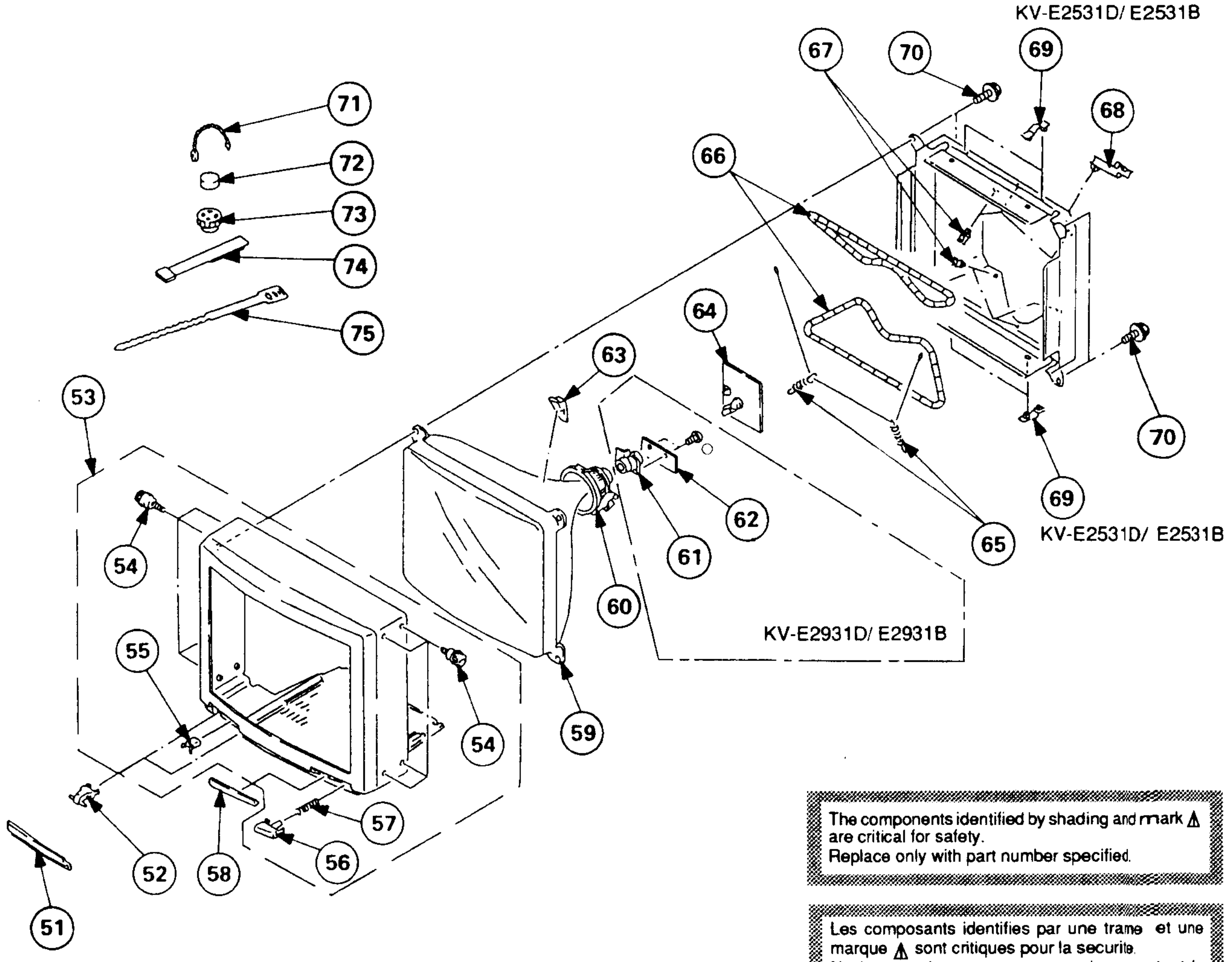
■ : BVTP4x16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	A-1678-043-A	BOX ASSY, WOOFER	102~106
102	X-4200-004-3	BOARD ASSY, BAFFLE	
103	1-544-767-11	SPEAKER (13CM)	
104	4-200-027-11	BOX, WOOFER	
105	4-200-009-01	CUSHION, FOOT	
106	1-696-409-11	CABLE, SPEAKER (WITH GROMMET)	
107	A-1678-044-A	BOX COMPLETE ASSY (L)	108-112 (KV-E2531B,E2531D)
	A-1678-041-A	BOX COMPLETE ASSY (L)	108-112 (KV-E2931B,E2931D)
108	4-036-628-01	PANEL (LEFT), REAR (KV-E2531B,E2531D)	
	4-036-654-01	PANEL (LEFT), REAR (KV-E2931B,E2931D)	
109	1-696-406-11	CABLE, SPEAKER (WITH GROMMET)	
110	X-4030-418-1	BOX (LEFT) ASSY, SIDE	111 (KV-E2531B,E2531D)
	X-4030-427-1	BOX (LEFT) ASSY, SIDE	111 (KV-E2931B,E2931D)
111	4-200-006-01	CUSHION, FOOT	
112	1-504-151-11	SPEAKER (7.5X13CM)	
113	X-4030-414-1	BOX (RIGHT) ASSY, SIDE	111 (KV-E2531B,E2531D)
	X-4030-426-1	BOX (RIGHT) ASSY, SIDE	111 (KV-E2931B,E2931D)
114	1-696-407-11	CABLE, SPEAKER (WITH GROMMET)	
115	4-036-626-01	PANEL (RIGHT), REAR (KV-E2531B,E2531D)	
	4-036-644-01	PANEL (RIGHT), REAR (KV-E2931B,E2931D)	
116	A-1678-047-A	BOX COMPLETE ASSY (R)	111~115 (KV-E2531B,E2531D)
	A-1678-040-A	BOX COMPLETE ASSY (R)	111~115 (KV-E2931B,E2931D)

6-2. PICTURE TUBE (KV-E2531D/ E2531B/ E2931D/ E2931B)

○ : BVTP3x8 7-685-646-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

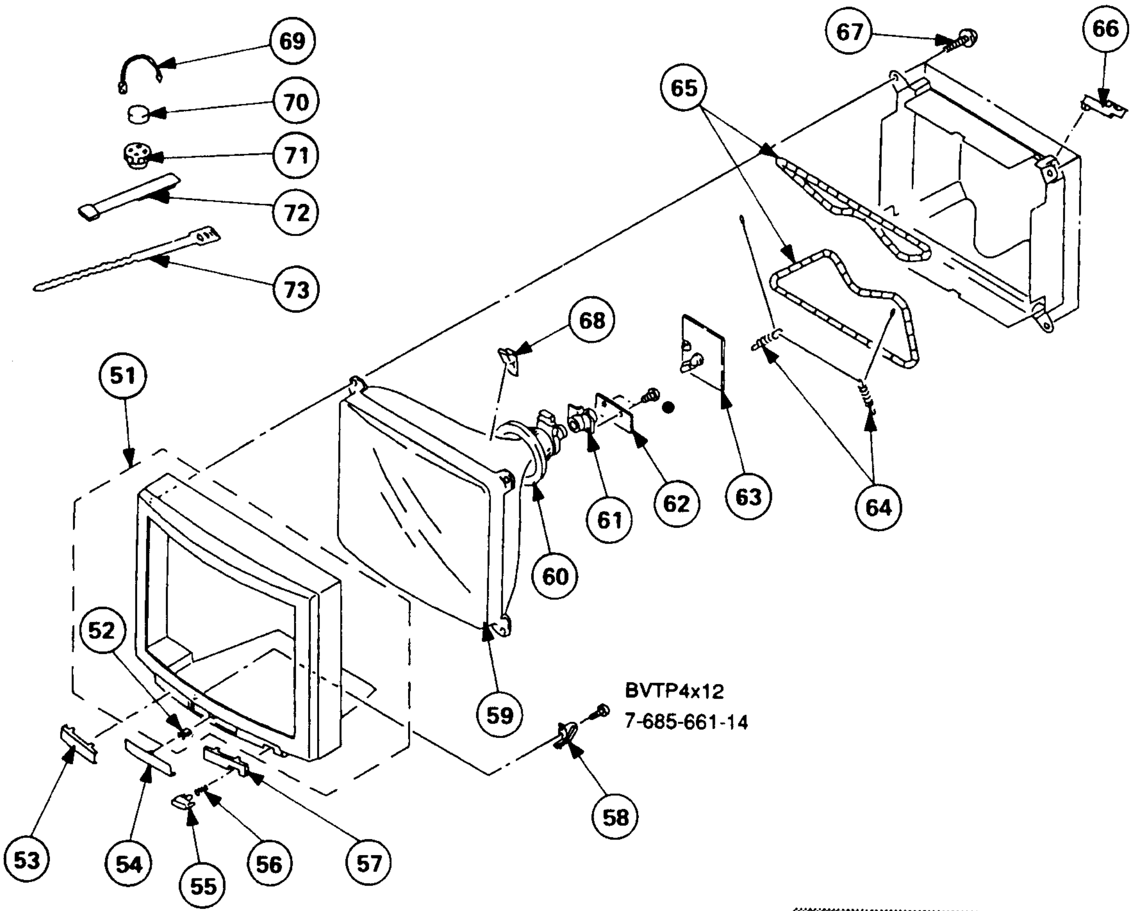
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4201-006-8	DOOR ASSY, CONTROL (KV-E2531B,E2531D)	
	X-4200-001-9	LID ASSY, CONTROL (KV-E2931B,E2931D)	
52	3-703-035-11	SHAFT, LID	
53	X-4030-417-1	CABINET ASSY (WITH BEZEL ASSY) 54~57 (KV-E2531B,E2531D)	
	X-4030-411-1	CABINET ASSY (WITH BEZEL ASSY) 54~57 (KV-E2931B,E2931D)	
54	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
55	4-392-036-01	CATCHER, PUSH	
56	4-200-013-01	BUTTON, POWER	
57	4-329-112-21	SPRING	
58	4-200-017-31	WINDOW, ORNAMENTAL	
59	⚠.8-733-231-05	PICTURE TUBE (A59JWC61X) (KV-E2531B,E2531D)	
	⚠.8-733-831-05	PICTURE TUBE (A68JYL61X) (KV-E2931B,E2931D)	
60	⚠ 1-451-311-21	DEFLECTION YOKE (Y25FXA) (KV-E2531B,E2531D)	
	⚠ 1-451-313-21	DEFLECTION YOKE (Y29FXA) (KV-E2931B,E2931D)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
61	⚠.1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308) (KV-E2931B ,E2931D)	
62	*A-1644-028-A	VM BOARD, COMPLETE (KV-E2931B,E2931D)	
63	3-704-495-01	SPACER, DY	
64	*A-1638-027-A	C BOARD, COMPLETE (KV-E2531B,E2531D)	
	*A-1638-025-A	C BOARD, COMPLETE (KV-E2931B,E2931D)	
65	4-303-774-21	SPRING, GROUND WIRE (KV-E2531B,E2531D)	
	4-369-318-31	SPRING, TENSION (KV-E2931B,E2931D)	
66	⚠ 1-402-746-21	COIL, DEGAUSSING (KV-E2531B,E2531D)	
	⚠ 1-402-747-21	COIL, DEGAUSSING (KV-E2931B,E2931D)	
67	4-034-296-01	HOLDER, DGC	
68	*4-387-284-01	HOLDER, LEAD	
69	*4-385-916-01	HOLDER (D) (KV-E2531B,E2531D)	
70	4-036-188-01	SCREW (M), PT	
71	4-308-870-00	CLIP, LEAD WIRE	
72	1-452-032-00	MAGNET, DISK; 10MM ϕ	
73	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
74	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
75	3-701-007-00	BAND, BINDING	

6-5. PICTURE TUBE (KV-E3431D/ E3431B)

● : BVTP3x12 7-685-648-79



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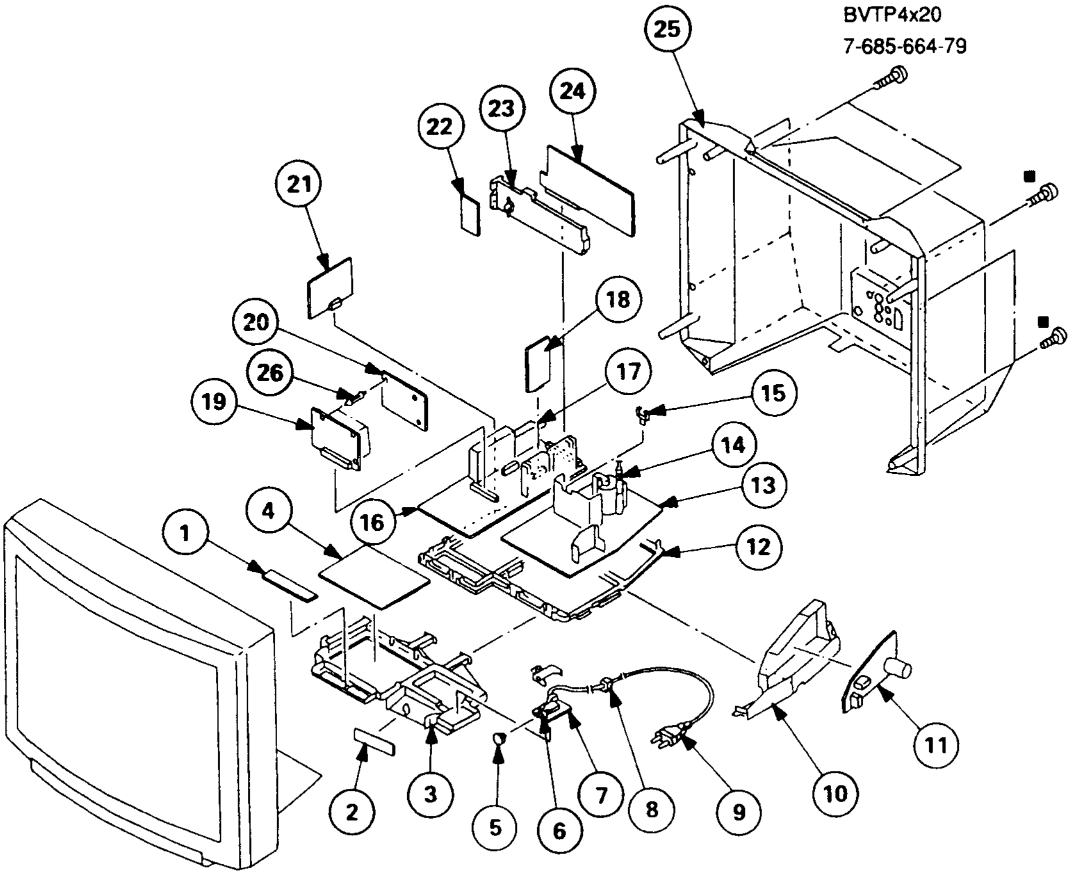
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-119-1	CABINET ASSY (WITH BEZEL ASSY)	52
52	4-392-036-01	CATCHER, PUSH	
53	4-200-435-01	PLATE, ORNAMENTAL	
54	4-200-828-01	DOOR	
55	4-200-444-01	BUTTON, POWER	
56	4-329-112-41	SPRING	
57	4-200-443-01	WINDOW, ORNAMENTAL	
58	X-4029-881-1	DAMPER ASSY	
59	⚠.8-733-723-05	PICTURE TUBE (A80JYV50X)	
60	⚠.1-451-315-11	DEFLECTION YOKE (Y34FXA)	
61	⚠.1-452-579-11	NECK ASSY, PICTURE TUBE (NA322)	
62	*A-1342-189-A	VM BOARD, COMPLETE	
63	*A-1638-026-A	C BOARD, COMPLETE	
64	*4-376-036-01	SPRING, TENSION	
65	⚠.1-402-748-11	COIL, DEGAUSSING	
66	*4-387-284-01	HOLDER, LEAD	
67	4-200-976-01	SCREW, PT	
68	3-704-495-01	SPACER, DY	
69	4-308-870-00	CLIP, LEAD WIRE	
70	1-452-032-00	MAGNET, DISK; 10MM ϕ	
71	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
72	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
73	3-701-007-00	BAND, BINDING	

6-4. CHASSIS (KV-E3431D/ E3431B)

■ : BVTP4x16 7-685-663-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-643-004-11	H1 BOARD	
2	*1-642-997-11	H2 BOARD	
3	*4-202-171-01	BRACKET, H	
4	*A-1640-083-A	D1 BOARD, COMPLETE	
5	4-386-611-01	COVER, SWITCH	
6	⚠.1-571-433-12	SWITCH, PUSH (AC POWER)	
7	*A-1241-086-A	F1 BOARD, COMPLETE	
8	⚠.4-389-201-03	HOLDER, AC CORD	
9	⚠.1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-E3431B)	
	⚠.1-590-501-11	CORD, POWER (WITH NOISE FILTER) (KV-E3431D)	
10	*4-202-140-01	BRACKET, F	
11	*A-1624-012-A	F2 BOARD, COMPLETE	
12	*4-202-141-01	BRACKET, MAIN	
13	*A-1642-083-A	D BOARD, COMPLETE	
14	⚠.1-453-123-11	TRANSFORMER ASSY, FLYBACK (UX-2602A3)	
15	*3-646-071-00	HOLDER, WIRE	
16	*A-1297-007-A	A BOARD, COMPLETE (KV-E3431B)	
	*A-1297-008-A	A BOARD, COMPLETE (KV-E3431D)	
17	⚠.1-693-185-11	TUNER (UV916H)	
18	*A-1131-037-A	B1 BOARD, COMPLETE	
19	*A-1635-001-A	M BOARD, COMPLETE	
20	*A-1347-069-A	V BOARD, COMPLETE	
21	*A-1622-005-A	P BOARD, COMPLETE	
22	*1-643-003-11	K BOARD	
23	*4-202-135-01	BRACKET, J	
24	*A-1651-039-A	J BOARD, COMPLETE	
25	X-4200-118-1	COVER ASSY, REAR	
26	*4-385-948-01	HOLDER, PCB	

B1

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F: nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF: µF, PF: µµF

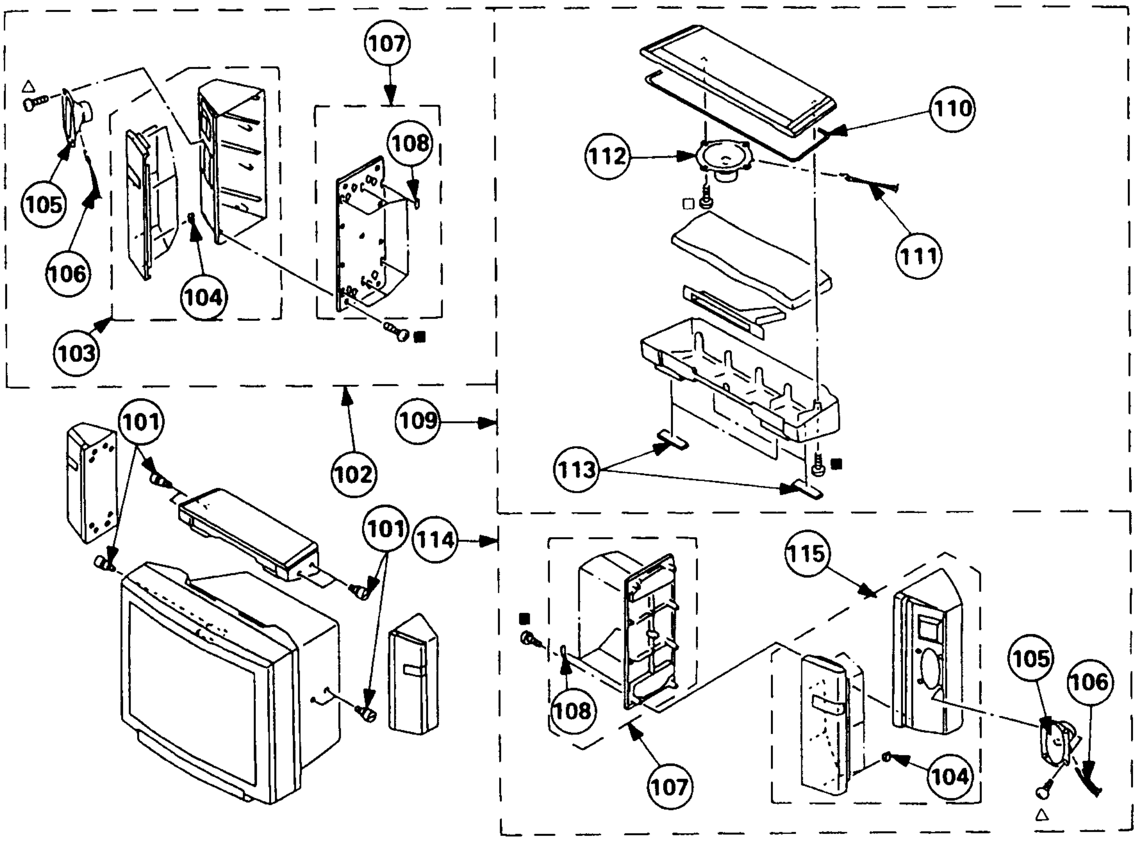
COILS
- MMH: mH, UH: µH

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1620-036-A	B1 BOARD, COMPLETE ****************** (KV-E2531B,E2531D,E2931B,E2931D)				
	*A-1131-037-A	B1 BOARD, COMPLETE (KV-E3431B,E3431D) ******************				
		<CAPACITOR>				
C1301	1-124-478-11	ELECT	100MF	20%	25V	
C1302	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1304	1-124-478-11	ELECT	100MF	20%	25V	
C1305	1-124-478-11	ELECT	100MF	20%	25V	
C1306	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1307	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1308	1-124-478-11	ELECT	100MF	20%	25V	
C1309	1-124-910-11	ELECT	47MF	20%	50V	
C1310	1-124-917-11	ELECT	33MF	20%	50V	
C1311	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1312	1-124-907-11	ELECT	10MF	20%	50V	
C1314	1-124-907-11	ELECT	10MF	20%	50V	
C1318	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1319	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C1320	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C1321	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1322	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1323	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C1324	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C1325	1-163-169-00	CERAMIC CHIP	33PF	5%	50V	
C1327	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C1333	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
		<CONNECTOR>				
CN0302	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P				
		<DIODE>				
D1302	8-719-400-18	DIODE MA152WK				
		<FILTER>				
FL1301	1-236-620-11	FILTER, LOW PASS				
FL1302	1-236-620-11	FILTER, LOW PASS				
FL1303	1-236-620-11	FILTER, LOW PASS				
FL1304	1-236-164-11	ENCAPSULATED COMPONENT				
		<IC>				
IC1301	8-741-692-01	IC SBX1692-01				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<COIL>				
L1301	1-408-405-00	INDUCTOR	4.7UH			
L1302	1-408-405-00	INDUCTOR	4.7UH			
L1304	1-408-406-00	INDUCTOR	5.6UH			
L1305	1-408-418-00	INDUCTOR	56UH			
		<TRANSISTOR>				
Q1301	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q1302	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q1305	8-729-216-22	TRANSISTOR	2SA1162-G			
Q1306	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q1307	8-729-216-22	TRANSISTOR	2SA1162-G			
Q1308	8-729-216-22	TRANSISTOR	2SA1162-G			
Q1309	8-729-216-22	TRANSISTOR	2SA1162-G			
Q1310	8-729-216-22	TRANSISTOR	2SA1162-G			
Q1311	8-729-216-22	TRANSISTOR	2SA1162-G			
Q1316	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
		<RESISTOR>				
JR1	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR4	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR5	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR6	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR7	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1301	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1302	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1303	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1304	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1305	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1306	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1307	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1308	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1310	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1311	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1312	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1313	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1314	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W	
R1315	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1316	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1319	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1320	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1321	1-216-204-00	METAL GLAZE	1.8K	5%	1/8W	
R1322	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1326	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R1327	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1328	1-216-043-00	METAL GLAZE	560	5%	1/10W	

6-6. SPEAKER (KV-E3431D/ E3431B)

■ : BVTP4x16 7-685-663-79
□ : BVTP4x10 7-685-660-79
△ : BVTP4x8 7-685-659-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
102	A-1678-039-A	BOX COMPLETE ASSY (LEFT)	103~108
103	X-4200-115-1	BOX ASSY, SIDE (L)	104
104	4-202-030-01	CLIP	
105	1-504-151-21	SPEAKER (7.5X13CM)	
106	1-696-408-11	CABLE, SPEAKER (WITH GROMMET)	
107	X-4200-116-1	BOTTOM ASSY, SIDE	108
108	4-200-006-11	CUSHION, FOOT	

REF.NO.	PART NO.	DESCRIPTION	REMARK
109	A-1678-050-A	BOX ASSY, WOOFER	110~113
110	*4-200-471-01	GASKET	
111	1-696-410-11	CABLE, SPEAKER (WITH GROMMET)	
112	1-544-767-11	SPEAKER (13CM)	
113	4-200-473-01	CUSHION, FOOT (B)	
114	A-1678-038-A	BOX COMPLETE ASSY (RIGHT)	104~108,115
115	X-4200-117-1	BOX ASSY, SIDE (R)	104

A

REF.NO.	PART NO.	DESCRIPTION			REMARK
C324	1 124-910-11	ELECT	47MF	20%	50V
C341	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C342	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C343	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C344	1-162-638-11	CERAMIC CHIP	1MF		16V
C345	1-164-346-11	CERAMIC CHIP	1MF		16V
C347	1 162-638-11	CERAMIC CHIP	1MF		16V
C348	1-164-346-11	CERAMIC CHIP	1MF		16V
C349	1 164-346-11	CERAMIC CHIP	1MF		16V
C350	1-124-907-11	ELECT	10MF	20%	50V
C351	1-126-233-11	ELECT	22MF	20%	50V
C353	1-164-346-11	CERAMIC CHIP	1MF		16V
C354	1-164-346-11	CERAMIC CHIP	1MF		16V
C355	1-162-638-11	CERAMIC CHIP	1MF		16V
C356	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C357	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C358	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C359	1-124-907-11	ELECT	10MF	20%	50V
C361	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C362	1-137-134-91	FILM	0.22MF	5%	63V
C363	1-124-907-11	ELECT	10MF	20%	50V
C365	1-124-120-11	ELECT	220MF	20%	16V
C366	1 124-903-11	ELECT	1MF	20%	50V
C401	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C402	1-124-917-11	ELECT	33MF	20%	50V
C403	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C411	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C412	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C421	1-124-910-11	ELECT	47MF	20%	50V
C422	1-124-910-11	ELECT	47MF	20%	50V
C423	1-101-004-00	CERAMIC	0.01MF		50V
C424	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C425	1 163-129-00	CERAMIC CHIP	330PF	5%	50V
C426	1 124-910-11	ELECT	47MF	20%	50V
C427	1 164-346-11	CERAMIC CHIP	1MF		16V
C428	1-164-346-11	CERAMIC CHIP	1MF		16V
C429	1-124-119-00	ELECT	330MF	20%	16V
C574	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C581	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C582	1-126-233-11	ELECT	22MF	20%	50V
C583	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C586	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C587	1 124-903-11	ELECT	1MF	20%	50V
C588	1-164-346-11	CERAMIC CHIP	1MF		16V
C589	1 126-233-11	ELECT	22MF	20%	50V
C590	1 126-233-11	ELECT	22MF	20%	50V
C591	1 124-925-11	ELECT	2.2MF	20%	50V
C592	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C593	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C595	1 163-117-00	CERAMIC CHIP	100PF	5%	50V
C681	1 124-478-11	ELECT	100MF	20%	25V
C682	1 126-101-11	ELECT	100MF	20%	16V
C683	1-124-478-11	ELECT	100MF	20%	25V
C684	1-124-478-11	ELECT	100MF	20%	25V
C685	1-124 478-11	ELECT	100MF	20%	25V

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CF581	1-577-611-11	OSCILALTOR, CERAMIC	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0001	*1-568-880-71	PIN, CONNECTOR 5P	
CN0101	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P	(KV-E2531D,E2931D,E3431D)
CN0102	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
CN0103	*1-564-511-11	PLUG, CONNECTOR 8P	
CN0104	*1-568-882-51	PIN, CONNECTOR 7P	
CN0105	*1-568-880-51	PIN, CONNECTOR 5P	
CN0107	*1-568-879-51	PIN, CONNECTOR 4P	
CN0108	*1-568-878-51	PIN, CONNECTOR 3P	
CN0109	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN0110	*1-568-882-51	PIN, CONNECTOR 7P	
CN0111	1-568-882-51	PIN, CONNECTOR 7P	
CN0113	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0114	*1-568-879-51	PIN, CONNECTOR 4P	
CN0115	*1-564-516-11	PLUG, CONNECTOR 13P	
CN0116	*1-568-879-51	PIN, CONNECTOR 4P	
CN0119	*1-568-879-81	PIN, CONNECTOR 4P	
CN0137	*1-564-511-11	PLUG, CONNECTOR 8P	
CN5108	*1-564-513-11	PLUG, CONNECTOR 10P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D068	8-719-104-34	DIODE 1S2836	
D069	8-719-104-34	DIODE 1S2836	
D071	8-719-109-89	DIODE RD5.6ES-B2	
D073	8-719-109-89	DIODE RD5.6ES-B2	
D075	8-719-400-18	DIODE MA152WK	
D077	8-719-400-18	DIODE MA152WK	
D078	8-719-109-89	DIODE RD5.6ES-B2	
D079	8-719-109-89	DIODE RD5.6ES-B2	
D101	8-719-982-27	DIODE MTZJ-33C	
D205	8-719-023-21	DIODE DA116-T146	
D206	8-719-400-18	DIODE MA152WK	
D207	8-719-921-89	DIODE MTZJ-13C	
D208	8-719-911-19	DIODE 1SS119	
D209	8-719-911-19	DIODE 1SS119	
D210	8-719-911-19	DIODE 1SS119	
D211	8-719-911-19	DIODE 1SS119	
D212	8-719-911-19	DIODE 1SS119	
D213	8-719-400-18	DIODE MA152WK	
D301	8-719-400-18	DIODE MA152WK	
D302	8-719-104-34	DIODE 1S2836	
D303	8-719-104-34	DIODE 1S2836	
D304	8-719-109-89	DIODE RD5.6ES-B2	
D305	8-719-400-18	DIODE MA152WK	
D306	8-719-400-18	DIODE MA152WK	
D307	8-719-400-18	DIODE MA152WK	
D308	8-719-800-76	DIODE 1SS226	
D311	8-719-800-76	DIODE 1SS226	
D381	8-719-110-03	DIODE RD7.5ES-B2	
D401	8-719-921-69	DIODE MTZJ-9.1	
D403	8-719-921-69	DIODE MTZJ-9.1	
D405	8-719-921-69	DIODE MTZJ-9.1	
D406	8-719-921-69	DIODE MTZJ-9.1	
D407	8-719-921-69	DIODE MTZJ-9.1	
D571	8-719-800-76	DIODE 1SS226	
D681	8-719-981-99	DIODE MTZJ-3.3	
D682	8-719-109-89	DIODE RD5.6ES-B2	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC072	8-759-073-14	IC X24C16P	
IC201	8-759-073-30	IC TDA6612	
IC202	8-759-502-21	IC TDA2822M	
IC251	8-759-072-99	IC TDA2052	
IC261	8-759-072-99	IC TDA2052	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1329	1-216-043-00	METAL GLAZE	560	5%	1/10W
R1330	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1331	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R1332	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R1333	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R1334	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R1341	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R1342	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1343	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1344	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION
	*A-1624-009-A	F1 BOARD, COMPLETE ****************** (KV-E2531B,E2531D,E2931B,E2931D)
	*A-1241-086-A	F1 BOARD, COMPLETE (KV-E3431B,E3431D) ******************
	1-533-230-11	HOLDER, FUSE
	*4-341-751-01	EYELET (EY691,EY692)
	*4-341-752-01	EYELET
		<CONNECTOR>
CN0003	*1-580-844-11	PIN, CONNECTOR (POWER)
CN0831	*1-695-292-11	PIN, CONNECTOR (POWER)
		<FUSE>
F651	⚠1-576-232-21	FUSE (H.B.C.) 5A/250V
		<SWITCH>
S651	⚠1-571-433-12	SWITCH, PUSH (AC POWER)

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REF.NO.	PART NO.	DESCRIPTION
	*A-1632-101-A	A BOARD, COMPLETE (KV-E2531B,E2931B) *****************
	*A-1632-090-A	A BOARD, COMPLETE (KV-E2531D,E2931D) *****************
	*A-1297-007-A	A BOARD, COMPLETE (KV-E3431B) *****************
	*A-1297-008-A	A BOARD, COMPLETE (KV-E3431D) *****************
	4-200-001-01	HOLDER, IC
	4-201-023-01	SPACER, INSULATING
	4-812-134-00	RIVET NYLON, 3.5

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C071	1-124-126-00	ELECT	47MF	20%	10V
C072	1-124-120-11	ELECT	220MF	20%	16V
C074	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C102	1-126-103-11	ELECT	470MF	20%	16V
C103	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C104	1-124-910-11	ELECT	47MF	20%	50V
C105	1-126-233-11	ELECT	22MF	20%	50V
C106	1-124-927-11	ELECT	4.7MF	20%	50V
C110	1-124-478-11	ELECT	100MF	20%	25V
C111	1-102-074-00	CERAMIC	0.001MF	10%	50V
					(KV-E2531B,E2931B,E3431B)
C120	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C201	1-137-129-91	FILM	0.033MF	5%	63V
C202	1-137-129-91	FILM	0.033MF	5%	63V
C203	1-164-005-11	CERAMIC CHIP	0.47MF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C204	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C205	1-124-907-11	ELECT	10MF	20%	50V
C206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C207	1-137-613-11	FILM	0.0018MF	2%	100V
C208	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C209	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C210	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C211	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C213	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C214	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C215	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C216	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C217	1-124-925-11	ELECT	2.2MF	20%	50V
C218	1-124-925-11	ELECT	2.2MF	20%	50V
C219	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C220	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C221	1-124-925-11	ELECT	2.2MF	20%	50V
C222	1-124-925-11	ELECT	2.2MF	20%	50V
C223	1-137-028-11	FILM	1MF	10%	63V
C224	1-137-028-11	FILM	1MF	10%	63V
C225	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C226	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C227	1-124-907-11	ELECT	10MF	20%	50V
C228	1-124-907-11	ELECT	10MF	20%	50V
C229	1-124-478-11	ELECT	100MF	20%	25V
C230	1-124-478-11	ELECT	100MF	20%	25V
C231	1-164-346-11	CERAMIC CHIP	1MF		16V
C232	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C233	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C234	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C235	1-137-134-91	FILM	0.22MF	5%	63V
C236	1-124-618-11	ELECT	2200MF	20%	35V
C237	1-124-618-11	ELECT	2200MF	20%	35V
C238	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C239	1-137-134-91	FILM	0.22MF	5%	63V
C240	1-126-233-11	ELECT	22MF	20%	50V
C241	1-126-233-11	ELECT	22MF	20%	50V
C242	1-124-903-11	ELECT	1MF	20%	50V
C243	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C244	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C251	1-126-320-11	ELECT	10MF	20%	16V
C301	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C302	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C303	1-164-346-11	CERAMIC CHIP	1MF		16V
C304	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C305	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C306	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C307	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C308	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C310	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C311	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C312	1-124-910-11	ELECT	47MF	20%	50V
C313	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C314	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C315	1-124-910-11	ELECT	47MF	20%	50V
C316	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C317	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C318	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C319	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C320	1-124-910-11	ELECT	47MF	20%	50V
C321	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C322	1-126-233-11	ELECT	22MF	20%	50V
C323	1-163-135-00	CERAMIC CHIP	560PF	5%	50V

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REF.NO.	PART NO.	DESCRIPTION				REMARK
JR226	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR227	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR228	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR229	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR230	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR231	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR232	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR233	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR234	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR235	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR236	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR237	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR238	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR239	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR240	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR241	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR242	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR243	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR244	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR245	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR247	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR248	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR250	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR251	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR252	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR253	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R071	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R073	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R074	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R076	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R077	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R103	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R105	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R108	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R115	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R201	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R202	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R203	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R204	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R205	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R206	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R207	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R208	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R209	1-249-377-91	CARBON	0.47	5%	1/4W	F
R210	1-247-734-11	CARBON	39	5%	1/2W	
R211	1-247-734-11	CARBON	39	5%	1/2W	
R212	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R216	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R217	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R218	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R221	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R222	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R223	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R224	1-249-433-11	CARBON	22K	5%	1/4W	
R225	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R226	1-249-412-11	CARBON	390	5%	1/4W	
R227	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R228	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R229	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R230	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R231	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R232	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R233	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R234	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R235	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R236	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R237	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R238	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R239	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R240	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R241	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R242	1-216-218-00	METAL GLAZE	6.8K	5%	1/8W	
R243	1-249-438-11	CARBON	56K	5%	1/4W	
R244	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R245	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R248	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R249	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R250	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R251	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R252	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R255	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R256	1-249-409-11	CARBON	220	5%	1/4W	
R257	1-249-409-11	CARBON	220	5%	1/4W	
R259	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R260	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R301	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R302	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R303	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R304	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R305	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R306	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R307	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R308	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R309	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R310	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R311	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R312	1-249-407-11	CARBON	150	5%	1/4W	
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R314	1-249-409-11	CARBON	220	5%	1/4W	
R315	1-249-409-11	CARBON	220	5%	1/4W	
R316	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R317	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R318	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R319	1-249-407-11	CARBON	150	5%	1/4W	
R320	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R321	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R322	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R325	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R328	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R329	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R330	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R331	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R333	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R334	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R339	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R340	1-216-025-00	METAL GLAZE	100	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC301	8-759-073-15	IC TDA9145	
IC302	8-759-505-39	IC TDA4660V2	
IC304	8-752-056-54	IC CXA1587S	
IC401	8-752-062-86	IC CXA1545AS	
IC402	8-759-073-00	IC TEA2114	
IC681	8-759-072-98	IC TDA8138A	
IC683	8-759-982-10	IC RC7809FA	
IC684	8-759-982-10	IC RC7809FA	

<IF BLOCK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IFB101	1-466-735-11	IF BLOCK (IFH-389F) (KV-E2531B,E2931B,E3431B)	
	1-466-733-11	IF BLOCK (IFH-389) (KV-E2531D,E2931D,E3431D)	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L101	1-412-546-21	INDUCTOR 560UH	
L102	1-408-413-00	INDUCTOR 22UH	
L201	1-407-500-00	INDUCTOR 4.7MMH	
L306	1-408-405-00	INDUCTOR 4.7UH	
L308	1-408-417-00	INDUCTOR 47UH	
L610	1-412-539-21	INDUCTOR 150UH	
L611	1-412-539-21	INDUCTOR 150UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q071	8-729-901-05	TRANSISTOR DTA124EK	
Q101	8-729-216-22	TRANSISTOR 2SA1162-G	
Q102	8-729-901-00	TRANSISTOR DTC124EK	
Q103	8-729-900-53	TRANSISTOR DTC114EK	
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q209	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q301	8-729-901-00	TRANSISTOR DTC124EK	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q304	8-729-900-53	TRANSISTOR DTC114EK	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
Q309	8-729-931-02	TRANSISTOR 2SC2413K-Q	
Q311	8-729-901-06	TRANSISTOR DTA144EK-T146	
Q312	8-729-900-53	TRANSISTOR DTC114EK	
Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q581	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q582	8-729-216-22	TRANSISTOR 2SA1162-G	
Q610	8-729-140-97	TRANSISTOR 2SB734-34	
Q611	8-729-900-53	TRANSISTOR DTC114EK	
Q683	8-729-140-96	TRANSISTOR 2SD774-34	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR102	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR103	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR104	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR105	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR107	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR108	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR109	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR110	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR111	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR112	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR113	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR114	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR115	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR116	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR117	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR118	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR119	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR120	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR121	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR122	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR123	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR124	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR125	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR127	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR128	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR129	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR131	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR132	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR133	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR134	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR136	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR137	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR138	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR140	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR141	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR142	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR143	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR144	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR150	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR201	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR202	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR203	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR204	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR205	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR206	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR207	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR208	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR209	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR210	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR211	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR212	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR213	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR214	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR215	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR216	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR217	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR218	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR219	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR220	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR221	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR222	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR223	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR224	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR225	1-216-296-00	METAL GLAZE 0 5% 1/8W	

IF

REF.NO.	PART NO.	DESCRIPTION	REMARK
C161	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C162	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C163	1-164-346-11	CERAMIC CHIP 1MF 16V	
C164	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C165	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C166	1-124-477-11	ELECT 47MF 20% 16V	
C167	1-163-213-00	CERAMIC CHIP 0.0022MF 5% 50V	
C168	1-164-346-11	CERAMIC CHIP 1MF 16V	
C170	1-124-477-11	ELECT 47MF 20% 16V	
C171	1-124-477-11	ELECT 47MF 20% 16V	
C172	1-124-477-11	ELECT 47MF 20% 16V	
C173	1-124-477-11	ELECT 47MF 20% 16V	

<FILTER>

CF2	1-527-839-00	FILTER, CERAMIC	
CF3	1-527-840-00	FILTER, CERAMIC	
CF4	1-567-570-11	FILTER, CERAMIC	
SWF1	1-579-658-11	FILTER, SAWTOOTH WAVE	

<CONNECTOR>

CN1	*1-506-913-11	PIN, CONNECTOR 10P	
CN2	*1-506-913-11	PIN, CONNECTOR 10P	

<TRIMMER>

CT1	1-404-801-11	TRAP, CERAMIC	

<DIODE>

D161	8-719-400-18	DIODE MA152WK	

<IC>

IC1	8-759-070-76	IC M52308SP	
IC2	8-759-070-71	IC TDA9820	
IC3	8-759-514-54	IC BA7046	

<COIL>

L101	1-408-421-00	INDUCTOR 100UH	
L102	1-408-419-00	INDUCTOR 68UH	
L103	1-408-419-00	INDUCTOR 68UH	
L104	1-408-408-00	INDUCTOR 8.2UH	
L121	1-408-413-00	INDUCTOR 22UH	
L122	1-408-420-00	INDUCTOR 82UH	
L142	1-410-790-41	INDUCTOR 0.56UH	
L151	1-408-419-00	INDUCTOR 68UH	
L161	1-408-419-00	INDUCTOR 68UH	

<TRANSISTOR>

Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-216-22	TRANSISTOR 2SA1162-G	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q170	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q171	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q173	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR7	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR11	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR25	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR29	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR30	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR33	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR38	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR39	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR40	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R101	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R102	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R103	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R104	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R106	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R107	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R110	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R113	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R114	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R115	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R116	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R117	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R118	1-216-117-00	METAL GLAZE 680K 5% 1/10W	
R119	1-216-240-00	METAL GLAZE 56K 5% 1/8W	
R120	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R121	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R122	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R123	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R124	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R125	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R127	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R130	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R131	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R132	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R133	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R134	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R135	1-216-198-00	METAL GLAZE 1K 5% 1/8W	
R150	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R151	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R152	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R153	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R154	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R155	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R156	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R157	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R159	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R160	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R161	1-216-100-00	METAL CHIP 130K 0.50% 1/10W	
R162	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R163	1-216-113-00	METAL GLAZE 470K 5% 1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R341	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R342	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R343	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R344	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R345	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R346	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R347	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R348	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R349	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R350	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R351	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R352	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R355	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R356	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R357	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R358	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R359	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R360	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R361	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R362	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R365	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R366	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R367	1-216-063-00	METAL GLAZE	3.9K	5%	1/8W	
R368	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R369	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R371	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R373	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R376	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R377	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R378	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R379	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W	
R380	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R401	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R402	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R405	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R406	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R407	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R408	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R410	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R411	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R412	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R413	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R414	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R416	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R417	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R419	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R420	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R423	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R424	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R425	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R427	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R428	1-249-393-11	CARBON	10	5%	1/4W	F
R572	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R574	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R575	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R581	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R582	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R583	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R584	1-216-039-00	METAL GLAZE	390	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R586	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R587	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R588	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R589	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R590	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R591	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R592	1-216-232-00	METAL GLAZE	27K	5%	1/8W	
R593	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R594	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R595	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R596	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R597	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R600	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R616	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R628	1-249-411-11	CARBON	330	5%	1/4W	
R681	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R684	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R685	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<TUNER>

TU101⚠1-693-185-11 TUNER (UV916H)

<CRYSTAL>

X301	1-567-504-11	OSCILLATOR, CRYSTAL
X302	1-567-505-11	OSCILLATOR, CRYSTAL

****

1-466-733-11 IF BLOCK (IFH-389)
****
(KV-E2531D,E2931D,E3431D)

<CAPACITOR>

C101	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C102	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C103	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C104	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C106	1-124-477-11	ELECT	47MF	20%	16V
C107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C109	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C112	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C113	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C114	1-124-477-11	ELECT	47MF	20%	16V
C115	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C116	1-164-346-11	CERAMIC CHIP	1MF		16V
C118	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C119	1-163-369-11	CERAMIC CHIP	47PF	5%	50V
C121	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C122	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C123	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C130	1-216-295-00	METAL GLAZE	0	5%	1/10W
C131	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C133	1-124-477-11	ELECT	47MF	20%	16V
C152	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C153	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C154	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C155	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C156	1-124-477-11	ELECT	47MF	20%	16V

IF

REF.NO.	PART NO.	DESCRIPTION	REMARK
L5	1-408-419-00	INDUCTOR 68UH	
L7	1-408-406-00	INDUCTOR 5.6UH	
L9	1-408-419-00	INDUCTOR 68UH	
L71	1-408-419-00	INDUCTOR 68UH	
L101	1-408-399-00	INDUCTOR 1.5UH	
L121	1-408-407-00	INDUCTOR 6.8UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-901-59	TRANSISTOR BF199	
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5	8-729-115-10	TRANSISTOR 2SK105A-10	
Q6	8-729-900-52	TRANSISTOR DTC114YK	
Q7	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q10	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q11	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q12	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q13	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q14	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q15	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q16	8-729-216-22	TRANSISTOR 2SA1162-G	
Q101	8-729-104-80	TRANSISTOR 2SC3355	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR5	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R1	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R4	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R5	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R6	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R8	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R9	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R10	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R11	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R24	1-216-280-00	METAL GLAZE	2.7M	5%	1/8W	
R25	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R26	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R27	1-216-266-00	METAL GLAZE	680K	5%	1/8W	
R28	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R29	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R30	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R31	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R32	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R33	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R34	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R35	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R36	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R37	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R38	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R39	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R40	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R42	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R43	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R44	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R45	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R46	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R47	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R48	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R53	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R54	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R55	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R58	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R59	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R60	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R61	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R63	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R71	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R72	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R73	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R74	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R75	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R76	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R77	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R81	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R82	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R83	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R84	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R85	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R86	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R87	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R88	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R89	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R90	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R91	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R92	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R93	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R94	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R95	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R96	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R97	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R98	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R99	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R100	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R102	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R103	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R105	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R123	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R124	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R125	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R302	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R303	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R304	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R306	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R307	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R308	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV2	1-241-120-11	RES, ADJ, CARBON 2.2K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T1	1-404-806-21	COIL	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R164	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R165	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R166	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R167	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R168	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R169	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R170	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R171	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R172	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R173	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R174	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R175	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R176	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R177	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R178	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R179	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R180	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R181	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

RV1	1-241-121-11	RES, ADJ, CARBON 4.7K

<TRANSFORMER>

T4	1-416-017-11	COIL, IF
T5		COIL, IF

****

1-466-735-11 IF BLOCK (IFH-389F)
****
(KV-E2531B,E2931B,E3431B)

<CAPACITOR>

C1	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3	1-124-903-11	ELECT	1MF	20%	50V
C4	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C5	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C6	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C7	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C8	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C9	1-126-233-11	ELECT	22MF	20%	25V
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C11	1-124-477-11	ELECT	47MF	20%	16V
C13	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C14	1-124-477-11	ELECT	47MF	20%	16V
C15	1-124-903-11	ELECT	1MF	20%	50V
C16	1-163-061-00	CERAMIC CHIP	0.015MF	10%	50V
C17	1-162-638-11	CERAMIC CHIP	1MF		16V
C18	1-162-638-11	CERAMIC CHIP	1MF		16V
C19	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C20	1-124-902-00	ELECT	0.47MF	20%	50V
C21	1-124-903-11	ELECT	1MF	20%	50V
C22	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C23	1-124-902-00	ELECT	0.47MF	20%	50V
C24	1-164-506-11	CERAMIC CHIP	4.7MF		16V
C25	1-124-477-11	ELECT	47MF	20%	16V
C26	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C27	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C28	1-124-477-11	ELECT	47MF	20%	16V
C33	1-124-907-11	ELECT	10MF	20%	50V
C34	1-124-907-11	ELECT	10MF	20%	50V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C35	1-124-925-11	ELECT	2.2MF	20%	50V	
C36	1-124-477-11	ELECT	47MF	20%	16V	
C37	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C38	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C40	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C71	1-124-477-11	ELECT	47MF	20%	16V	
C72	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C80	1-124-477-11	ELECT	47MF	20%	16V	
C83	1-124-477-11	ELECT	47MF	20%	16V	
C84	1-124-477-11	ELECT	47MF	20%	16V	
C85	1-124-477-11	ELECT	47MF	20%	16V	
C86	1-124-477-11	ELECT	47MF	20%	16V	
C87	1-124-477-11	ELECT	47MF	20%	16V	
C91	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C95	1-164-337-11	CERAMIC CHIP	2.2MF		16V	
C101	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C102	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C104	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C105	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C106	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C121	1-126-176-11	ELECT	220MF	20%	10V	
C122	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	

<FILTER>

CF1	1-527-839-00	FILTER, CERAMIC
CF2	1-567-569-11	FILTER, CERAMIC
CF3	1-527-840-00	FILTER, CERAMIC
CF4	1-567-570-11	FILTER, CERAMIC
SWF1	1-579-662-11	FILTER, SURFACE WAVE
SWF3	1-404-711-11	SAWF
SWF4	1-579-660-11	FILTER, SAWTOOTH WAVE

<CONNECTOR>

CN1	*1-506-913-11	PIN, CONNECTOR 10P
CN2	*1-506-913-11	PIN, CONNECTOR 10P

<TRIMMER>

CT1	1-404-801-11	TRAP, CERAMIC
CT2	1-409-429-11	TRAP, CERAMIC
CV1	1-141-245-00	CAP, TRIMMER
CV2	1-141-245-00	CAP, TRIMMER
CV3	1-141-304-21	TRIMMER, CERAMIC

<DIODE>

D7	8-719-421-57	DIODE MA73-TX
D8	8-719-421-57	DIODE MA73-TX
D9	8-719-421-57	DIODE MA73-TX

<IC>

IC1	8-759-070-75	IC M52312SP
IC2	8-759-070-71	IC TDA9820
IC3	8-759-979-62	IC PCF8574

<COIL>

L1	1-408-419-00	INDUCTOR	68UH
L2	1-408-419-00	INDUCTOR	68UH
L3	1-408-407-00	INDUCTOR	6.8UH
L4	1-408-419-00	INDUCTOR	68UH

V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C11	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C12	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	
C13	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C14	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C15	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C17	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C18	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C19	1-163-089-00	CERAMIC CHIP	6PF	0.25PF	50V	
C20	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C21	1-163-833-00	CERAMIC CHIP	0.068MF		25V	
C22	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C23	1-163-210-00	CERAMIC CHIP	0.0016MF	5%	50V	
C24	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C25	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C26	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C28	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C30	1-137-033-11	FILM	0.33MF	10%	100V	
C32	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C33	1-124-910-11	ELECT	47MF	20%	50V	
C34	1-124-907-11	ELECT	10MF	20%	50V	
C35	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C36	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C37	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C39	1-163-135-00	CERAMIC CHIP	560PF	5%	50V	
C40	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C53	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C54	1-163-038-00	CERAMIC CHIP	0.1MF		25V	

<CONNECTOR>

CN1737	*1-564-511-11	PLUG, CONNECTOR 8P
CN1741	*1-564-511-11	PLUG, CONNECTOR 8P

<TRIMMER>

CT01	1-141-418-11	CAP, ADJ

<DIODE>

D01	8-719-400-18	DIODE MA152WK
D03	8-719-104-34	DIODE 1S2836
D04	8-719-104-34	DIODE 1S2836
D09	8-719-400-18	DIODE MA152WK
D10	8-719-400-18	DIODE MA152WK
D11	8-719-400-18	DIODE MA152WK
D12	8-719-400-18	DIODE MA152WK

<IC>

IC01	8-759-073-28	IC SDA5248CI
IC02	8-759-037-64	IC SDA5231-2
IC03	8-759-146-48	IC UPD424256C-80
IC04	8-752-353-39	IC CXD1050A-15P
IC05	8-759-987-16	IC LM393P

<COIL>

L01	1-408-411-00	INDUCTOR	15UH
L02	1-408-414-00	INDUCTOR	27UH
L03	1-408-417-00	INDUCTOR	47UH
L04	1-408-413-00	INDUCTOR	22UH
L05	1-408-409-00	INDUCTOR	10UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q01	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q03	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q04	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q06	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q07	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q08	8-729-216-22	TRANSISTOR 2SA1162-G	
Q09	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q10	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q11	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q12	8-729-901-00	TRANSISTOR DTC124EK	

<RESISTOR>

JR02	1-216-295-00	METAL GLAZE	0	5%	1/10W
R01	1-216-025-00	METAL GLAZE	100	5%	1/10W
R02	1-216-025-00	METAL GLAZE	100	5%	1/10W
R03	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R04	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R05	1-216-041-00	METAL GLAZE	470	5%	1/10W
R06	1-216-029-00	METAL GLAZE	150	5%	1/10W
R07	1-216-041-00	METAL GLAZE	470	5%	1/10W
R08	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R09	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R10	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R11	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R12	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R13	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R15	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R16	1-216-033-00	METAL GLAZE	220	5%	1/10W
R17	1-216-033-00	METAL GLAZE	220	5%	1/10W
R20	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R21	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R22	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R23	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R24	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R25	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R26	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R27	1-216-043-00	METAL GLAZE	560	5%	1/10W
R28	1-216-043-00	METAL GLAZE	560	5%	1/10W
R29	1-216-043-00	METAL GLAZE	560	5%	1/10W
R30	1-216-037-00	METAL GLAZE	330	5%	1/10W
R31	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R32	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R33	1-216-017-00	METAL GLAZE	47	5%	1/10W
R34	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R35	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R36	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R37	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R38	1-218-773-11	METAL CHIP	750K	0.50%	1/10W
R39	1-216-103-00	METAL CHIP	180K	0.50%	1/10W
R40	1-216-043-00	METAL GLAZE	560	5%	1/10W
R41	1-216-033-00	METAL GLAZE	220	5%	1/10W
R42	1-216-033-00	METAL GLAZE	220	5%	1/10W
R43	1-216-033-00	METAL GLAZE	220	5%	1/10W
R44	1-216-033-00	METAL GLAZE	220	5%	1/10W
R46	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R47	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R48	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R49	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R50	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R54	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R55	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
T3	1-416-012-11	COIL	
T4	1-416-012-11	COIL	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X1	1-579-648-21	VIBRATOR, CERAMIC	

* * *

*A-1644-028-A VM BOARD, COMPLETE (KV-E2931B,E2931D)
****
*A-1342-189-A VM BOARD, COMPLETE (KV-E3431B,E3431D)
****

*4-368-683-01 SPRING (KV-E2931B,E2931D)
4-382-854-11 SCREW (M3X10), P, SW (+) (KV-E3431B,E3431D)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1701	1-124-119-00	ELECT	330MF	20%	16V	
C1702	1-101-880-00	CERAMIC	47PF	5%	50V	
C1703	1-102-115-00	CERAMIC	560PF	10%	50V	
C1704	1-161-830-00	CERAMIC	0.0047MF		500V	
C1705	1-124-120-11	ELECT	220MF	20%	16V	
C1706	1-123-935-00	ELECT	33MF	20%	160V	
C1707	1-124-907-11	ELECT	10MF	20%	50V	
C1708	1-101-006-00	CERAMIC	0.047MF		50V	
C1709	1-108-704-11	MYLAR	0.1MF	10%	200V	
C1710	1-137-052-91	FILM	0.047MF	10%	400V	
C1711	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1712	1-124-799-11	ELECT	2.2MF	20%	160V	
C1713	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1714	1-137-052-91	FILM	0.047MF	10%	400V	
C1716	1-124-907-11	ELECT	10MF	20%	50V	
C1718	1-124-120-11	ELECT	220MF	20%	16V	
C1719	1-124-907-11	ELECT	10MF	20%	50V	D)

D)

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1819	*1-568-882-81	PIN, CONNECTOR 7P	
CN1830	*1-568-878-51	PIN, CONNECTOR 3P (KV-E3431B,E3431D)	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1701	8-719-911-19	DIODE 1SS119	
D1702	8-719-911-19	DIODE 1SS119	
D1703	8-719-911-19	DIODE 1SS119	
D1704	8-719-982-37	DIODE MTZJ-39C	
D1705	8-719-982-37	DIODE MTZJ-39C	
D1706	8-719-911-19	DIODE 1SS119	
D1707	8-719-911-19	DIODE 1SS119	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1702	1-408-418-00	INDUCTOR	56UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1702	8-729-173-38	TRANSISTOR 2SA733-K	
Q1703	8-729-208-39	TRANSISTOR 2SA1306A-Y	
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1705	8-729-208-72	TRANSISTOR 2SC3298B-Y	
Q1706	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1707	8-729-140-96	TRANSISTOR 2SD774-34	
Q1708	8-729-907-06	TRANSISTOR BF199-AMMO	
Q1709	8-729-255-12	TRANSISTOR 2SC2551-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1701	1-249-405-11	CARBON	100	5%	1/4W	
R1702	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1703	1-249-405-11	CARBON	100	5%	1/4W	
R1704	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1705	1-247-736-11	CARBON	56	5%	1/2W	F
R1706	1-249-414-11	CARBON	560	5%	1/4W	F
R1707	1-249-412-11	CARBON	390	5%	1/4W	
R1709	1-249-416-11	CARBON	820	5%	1/4W	
R1710	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1711	1-249-432-11	CARBON	18K	5%	1/4W	
R1712	1-249-435-11	CARBON	33K	5%	1/4W	
R1713	1-249-438-11	CARBON	56K	5%	1/4W	
R1714	1-249-429-11	CARBON	10K	5%	1/4W	
R1715	1-216-476-11	METAL OXIDE	180	5%	3W	F
R1716	1-249-417-11	CARBON	1K	5%	1/4W	F
R1717	1-249-432-11	CARBON	18K	5%	1/4W	
R1718	1-249-410-11	CARBON	270	5%	1/4W	
R1719	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1720	1-249-441-11	CARBON	100K	5%	1/4W	
R1721	1-249-414-11	CARBON	560	5%	1/4W	
R1722	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1723	1-249-429-11	CARBON	10K	5%	1/4W	
R1724	1-249-436-11	CARBON	39K	5%	1/4W	
R1725	1-249-417-11	CARBON	1K	5%	1/4W	
R1726	1-249-411-11	CARBON	330	5%	1/4W	
R1727	1-249-402-11	CARBON	56	5%	1/4W	F
R1729	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1731	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1732	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1734	1-249-419-11	CARBON	1.5K	5%	1/4W	

* * *

*A-1645-024-A V BOARD, COMPLETE
****
(KV-E2531B,E2531D,E2931I, E2931D)
*A-1347-069-A V BOARD, COMPLETE (KV-E3431B,E3431D)
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C01	1-126-233-11	ELECT	22MF	20%	50V	
C02	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C03	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C04	1-126-233-11	ELECT	22MF	20%	50V	
C05	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C06	1-124-120-11	ELECT	220MF	20%	16V	
C07	1-124-903-11	ELECT	1MF	20%	50V	
C08	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C10	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	

P

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1462	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C1463	1-126-101-11	ELECT 100MF 20%	16V
C1464	1-126-101-11	ELECT 100MF 20%	16V
C1465	1-126-101-11	ELECT 100MF 20%	16V
C1466	1-126-101-11	ELECT 100MF 20%	16V
C1467	1-126-101-11	ELECT 100MF 20%	16V
C1471	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1472	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1473	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1481	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C1482	1-163-001-11	CERAMIC CHIP 220PF 10%	50V
C1491	1-124-907-11	ELECT 10MF 20%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1514*	1-568-879-51	PIN, CONNECTOR 4P	
CN1515*	1-564-516-11	PLUG, CONNECTOR 13P	
CN1516*	1-568-879-51	PIN, CONNECTOR 4P	
CN1538*	1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1401	8-719-105-91	DIODE RD5.6M-B2	

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL1403	1-236-071-11	ENCAPSULATED COMPONENT	
FL1404	1-236-071-11	ENCAPSULATED COMPONENT	
FL1405	1-236-071-11	ENCAPSULATED COMPONENT	
FL1406	1-236-071-11	ENCAPSULATED COMPONENT	
FL1407	1-236-071-11	ENCAPSULATED COMPONENT	
FL1408	1-236-071-11	ENCAPSULATED COMPONENT	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1401	8-759-073-16	IC TDA9160	
IC1402	8-759-510-48	IC TDA4660T	
IC1403	8-759-055-51	IC SDA9087XGEG	
IC1404	8-759-055-52	IC SDA9089XGEG	
IC1405	8-759-046-27	IC SDA9086-3	
IC1406	8-759-504-21	IC TDA8443A/C4	
IC1410	8-759-037-45	IC MC78L08ACPRP	
IC1411	8-759-081-30	IC MC78L05ACPRP	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1401	1-408-418-00	INDUCTOR 56UH	
L1405	1-408-407-00	INDUCTOR 6.8UH	
L1406	1-408-407-00	INDUCTOR 6.8UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMAR
Q1401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1405	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1406	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1407	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1408	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1409	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1413	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1414	8-729-900-53	TRANSISTOR DTC114EK	
Q1415	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1416	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1417	8-729-900-53	TRANSISTOR DTC114EK	
Q1418	8-729-900-53	TRANSISTOR DTC114EK	
Q1419	8-729-900-53	TRANSISTOR DTC114EK	
Q1421	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1422	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1423	8-729-900-36	TRANSISTOR DTC124ES	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMAR
JR1401	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1402	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1403	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R1401	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1402	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1403	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1404	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1405	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1406	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R1407	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1408	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1410	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R1411	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1412	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1413	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1414	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1415	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1417	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1418	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R1419	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R1421	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1422	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R1424	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1425	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1426	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1427	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1429	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R1431	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R1432	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R1433	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1434	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R1435	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R1436	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1437	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1438	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R1439	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1441	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R1442	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R1443	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R1444	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1445	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R1446	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R1449	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1450	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1451	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1452	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
R1453	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1454	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1455	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1456	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1458	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1461	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R1462	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R1463	1-249-417-11	CARBON 1K 5% 1/4W	
R1471	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R1481	1-216-097-00	METAL GLAZE 100K 5% 1/10W	

REF.NO. PART NO. DESCRIPTION REMARK

<CRYSTAL>

X02	1-567-495-11	OSCILLATOR, CRYSTAL			

****

*1-643-004-11 H1 BOARD
****

<CAPACITOR>

C083	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C087	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V

<CONNECTOR>

CN1008	*1-564-516-11	PLUG, CONNECTOR 13P			

<JACK>

J81	1-568-678-11	TERMINAL BLOCK, S 3P			
J82	1-562-837-11	JACK			

<COIL>

L081	1-408-409-00	INDUCTOR	10UH		
L082	1-408-409-00	INDUCTOR	10UH		

<RESISTOR>

JR020	1-216-295-00	METAL.GLAZE	0	5%	1/10W
JR021	1-216-295-00	METAL GLAZE	0	5%	1/10W
R081	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R082	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R083	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R084	1-249-419-11	CARBON	1.5K	5%	1/4W
R085	1-249-419-11	CARBON	1.5K	5%	1/4W

<SWITCH>

S081	1-571-532-21	SWITCH, TACTIL			
S082	1-571-532-21	SWITCH, TACTIL			
S083	1-571-532-21	SWITCH, TACTIL			

****

*1-642-997-11 H2 BOARD
****

	*4-201-076-01	HOLDER, LED			
	*4-374-987-01	GUIDE, LIGHT			
	*4-381-686-01	BRACKET (B), LIGHT GUIDE			

<CONNECTOR>

CN1132	*1-568-882-51	PIN, CONNECTOR 7P			

<DIODE>

D092	8-719-948-31	DIODE LD-201VR			
D093	8-719-948-31	DIODE LD-201VR			
D094	8-719-948-31	DIODE LD-201VR			

<IC>

REF.NO. PART NO DESCRIPTION REMARK

IC091	8-741-101-75	IC SBX1610-11			

<RESISTOR>

R091	1-249-413-11	CARBON	470	5%	1/4W

****

*A-1622-005-A P BOARD, COMPLETE
****

<CAPACITOR>

C1401	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1402	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1403	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1404	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C1405	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C1406	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C1407	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1408	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1409	1-124-903-11	ELECT	1MF	20%	50V
C1410	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1411	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1412	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1414	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C1416	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C1417	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C1419	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1420	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1421	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1422	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1423	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1424	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1425	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1426	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1427	1-126-233-11	ELECT	22MF	20%	50V
C1428	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1430	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1431	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1432	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1433	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1434	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1435	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1436	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1437	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C1438	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C1441	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1442	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1443	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1444	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1445	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1446	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1447	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1448	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C1449	1-163-257-11	CERAMIC CHIP	180PF	5%	50V
C1450	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1452	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1453	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1454	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1455	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1456	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1457	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1461	1-164-005-11	CERAMIC CHIP	0.47MF		25V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1482	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1483	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1484	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1485	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1486	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1492	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1493	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1494	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R1495	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1496	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1497	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1498	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1499	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<CRYSTAL>

X1401	1-567-505-11	OSCILLATOR, CRYSTAL
X1402	1-567-504-11	OSCILLATOR, CRYSTAL

****

*A-1624-010-A F2 BOARD, COMPLETE
****
(KV-E2531B,E2531D,E2931B,E2931D)
*A-1624-012-A F2 BOARD, COMPLETE (KV-E3431B,E3431D)
****

*4-341-751-01 EYELET
*4-341-752-01 EYELET

<CAPACITOR>

C661	⚠ 1-136-519-11	FILM	0.47MF	20%	300V
C662	⚠ 1-136-518-11	FILM	0.33MF	20%	300V
C664	⚠ 1-164-246-51	CERAMIC	0.0022MF	20%	400V
C666	1-124-120-11	ELECT	220MF	20%	25V
C667	1-126-233-11	ELECT	22MF	20%	50V
C672	⚠ 1-161-964-61	CERAMIC	0.0047MF		250V
C673	⚠ 1-161-964-61	CERAMIC	0.0047MF		250V
C674	⚠ 1-125-318-11	ELECT(BLOCK)	220MF	20%	400V
		(KV-E2531B,E2531D E2931B,E2931D)			
	⚠ 1-125-555-11	ELECT	330MF	20%	400V
		(KV-E3431B,E3431D)			

<CONNECTOR>

CN0005	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CN0007	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN0924	*1-568-878-51	PIN, CONNECTOR 3P
CN0925	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P
CN0929	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
CN0931	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P

<DIODE>

D661	8-719-911-19	DIODE 1SS119
D662	8-719-400-18	DIODE MA152WK
D663	⚠ 8-719-510-63	DIODE D4SB60L-F
D664	8-719-921-69	DIODE MTZJ-9.1

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
LF661	⚠ 1-424-391-11	TRANSFORMER, LINE FILTER	
		(KV-E2531B,E2531D,E2931B,E2931D)	
	⚠ 1-424-436-11	TRANSFORMER, LINE FILTER	
		(KV-E3431B,E3431D)	
LF662	⚠ 1-424-391-11	TRANSFORMER, LINE FILTER	
		(KV-E2531B,E2531D,E2931B,E2931D)	
	⚠ 1-424-436-11	TRANSFORMER, LINE FILTER	
		(KV-E3431B,E3431D)	
LF663	⚠ 1-421-862-11	LFT	

<TRANSISTOR>

Q661	8-729-120-28	TRANSISTOR 2SC1623-L5L6

<RESISTOR>

R663	⚠ 1-244-945-91	CARBON	1M	5%	1/2W	
R664	⚠ 1-205-949-11	WIREWOUND	1.8	5%	10W	
		(KV-E2531B,E2531D,E2931B,E2931D)				
	⚠ 1-202-968-11	WIREWOUND	1.2	5%	10W	
		(KV-E3431B,E3431D)				
R665	⚠ 1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R666	1-249-405-11	CARBON	100	5%	1/4W	F
R667	1-249-430-11	CARBON	12K	5%	1/4W	
R668	1-249-434-11	CARBON	27K	5%	1/4W	
R669	⚠ 1-205-949-11	WIREWOUND	1.8	5%	10W	
		(KV-E2531B,E2531D,E2931B,E2931D)				
	⚠ 1-202-968-11	WIREWOUND	1.2	5%	10W	
		(KV-E3431B,E3431D)				
R670	⚠ 1-202-968-11	WIREWOUND	1.2	5%	10W	
		(KV-E3431B,E3431D)				
R671	1-249-415-11	CARBON	680	5%	1/4W	F

<RELAY>

RY661	⚠ 1-515-720-31	RELAY

<THERMISTOR>

THP661	⚠ 1-809-827-11	THERMISTOR, POSITIVE

****

*A-1635-001-A M BOARD, COMPLETE
****

<CAPACITOR>

C001	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C003	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C007	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C010	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C011	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C012	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C014	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C016	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C018	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C019	1-126-233-11	ELECT	22MF	20%	50V
C032	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C035	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C036	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C037	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C501	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C502	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C503	1-137-123-91	FILM	0.0033MF	5%	63V
C504	1-137-025-91	FILM	0.56MF	10%	63V

M

REF.NO.	PART NO.	DESCRIPTION			REMARK
C505	1-124-925-11	ELECT	2.2MF	20%	50V
C506	1-162-568-11	CERAMIC CHIP	0.33MF	10%	16V
C507	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C508	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C509	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C510	1-124-925-11	ELECT	2.2MF	20%	50V
C511	1-137-102-11	FILM	0.022MF	10%	250V
C512	1-126-103-11	ELECT	470MF	20%	16V
C513	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C514	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C515	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C519	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C522	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C523	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C531	1-164-493-11	CERAMIC CHIP	0.047MF	10%	50V
C532	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C538	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C541	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C542	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C543	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C544	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C546	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C547	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C549	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C550	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C552	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C559	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C560	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C563	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C564	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C565	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C566	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C567	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C568	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C569	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C570	1-162-568-11	CERAMIC CHIP	0.33MF	10%	16V

<FILTER>

CD001	1-577-364-11	VIBRATOR, CERAMIC

<CONNECTOR>

CN1406	*1-568-880-61	PIN, CONNECTOR 5P
CN1413	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P
CN1426	*1-568-881-51	PIN, CONNECTOR 6P
CN1432	*1-568-882-51	PIN, CONNECTOR 7P
CN1441	*1-564-511-11	PLUG, CONNECTOR 8P

<DIODE>

D001	8-719-027-82	DIODE MA3039H-TX
D501	8-719-800-76	DIODE 1SS226
D503	8-719-401-31	DIODE MA3047L-TX
D504	8-719-400-18	DIODE MA152WK
D510	8-719-105-91	DIODE RD5.6M-B2

<IC>

IC001	8-759-072-93	IC SDA30C162
	*1-540-123-11	SOCKET, IC 68P; IC001
IC003	8-759-097-29	IC M27C512-20B1-AE-24
IC501	8-759-513-48	IC TDA2595/V9
IC561	8-752-347-92	IC CXD2018Q
IC562	8-759-998-98	IC LM358D
IC563	8-759-081-30	IC MC78L05ACPRP

<COIL>

L001	1-408-421-00	INDUCTOR	100UH
L501	1-410-119-11	INDUCTOR	1MMH
L561	1-408-409-00	INDUCTOR	10UH
L562	1-408-409-00	INDUCTOR	10UH
L563	1-408-947-00	INDUCTOR	2.2MMH

<TRANSISTOR>

Q002	8-729-216-22	TRANSISTOR 2SA1162-G
Q003	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q501	8-729-901-01	TRANSISTOR DTC144EK
Q502	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q503	8-729-901-01	TRANSISTOR DTC144EK
Q508	8-729-901-01	TRANSISTOR DTC144EK
Q509	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q564	8-729-216-22	TRANSISTOR 2SA1162-G
Q565	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q566	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q567	8-729-901-01	TRANSISTOR DTC144EK

<RESISTOR>

JR002	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR502	1-216-296-00	METAL GLAZE	0	5%	1/8W
R001	1-216-025-00	METAL GLAZE	100	5%	1/10W
R002	1-216-025-00	METAL GLAZE	100	5%	1/10W
R003	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R006	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R007	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R008	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R010	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R011	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R014	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R015	1-216-296-00	METAL GLAZE	0	5%	1/8W
R016	1-216-045-00	METAL GLAZE	680	5%	1/10W
R017	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R018	1-216-041-00	METAL GLAZE	470	5%	1/10W
R020	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R021	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R025	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R026	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R028	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R030	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R032	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R033	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R034	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R035	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R038	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R049	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R050	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R051	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R052	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R053	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R054	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R055	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R067	1-216-037-00	METAL GLAZE	330	5%	1/10W
R068	1-216-037-00	METAL GLAZE	330	5%	1/10W
R069	1-216-037-00	METAL GLAZE	330	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q712	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q713	8-729-216-22	TRANSISTOR 2SA1162-G				
Q714	8-729-255-12	TRANSISTOR 2SC2551-O				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR701	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR703	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R701	1-202-848-00	SOLID	680K	10%	1/2W	
R702	1-202-838-00	SOLID	100K	20%	1/2W	
R703	1-202-838-00	SOLID	100K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	10%	1/2W	
R705	1-216-398-11	METAL OXIDE	5.6	5%	3W	F
R706	1-216-398-11	METAL OXIDE	5.6	5%	3W	F
R710	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R711	1-202-820-11	SOLID	1.5K	20%	1/2W	
R712	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R713	1-202-820-11	SOLID	1.5K	20%	1/2W	
R714	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R715	1-202-820-11	SOLID	1.5K	20%	1/2W	
R716	1-247-700-11	CARBON	100	5%	1/4W	F
R717	1-249-405-11	CARBON	100	5%	1/4W	F
R718	1-247-700-11	CARBON	100	5%	1/4W	F
R720	1-249-417-11	CARBON	1K	5%	1/4W	F
R722	1-247-713-11	CARBON	1K	5%	1/4W	F
R724	1-249-417-11	CARBON	1K	5%	1/4W	F
R725	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R726	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R727	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R728	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R729	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R730	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R731	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R732	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R733	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R734	1-202-549-00	SOLID	100	20%	1/2W	
R735	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R738	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R739	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R740	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R741	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R742	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R743	1-249-434-11	CARBON	27K	5%	1/4W	
R747	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R749	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R751	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R753	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R755	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	(KV-E2531B,E2531D)
	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	(KV-E2931B,E2931D)
	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	(KV-E3431B,E3431D)
R756	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	(KV-E2531B,E2531D)
	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	(KV-E2931B,E2931D)
	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	(KV-E3431B,E3431D)
R757	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	(KV-E2531B,E2531D)
	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	(KV-E2931B,E2931D)
	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	(KV-E3431B,E3431D)

REF.NO.	PART NO.	DESCRIPTION				REMARK
R758	1-249-419-11	CARBON	1.5K	5%	1/4W	
R759	1-249-419-11	CARBON	1.5K	5%	1/4W	
R760	1-249-419-11	CARBON	1.5K	5%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M

****

*A-1640-083-A D1 BOARD, COMPLETE (KV-E3431B,E3431D)
****

REF.NO.	PART NO.	DESCRIPTION
	*4-341-751-01	EYELET (EY1,EY2)
	*4-341-752-01	EYELET (EY3,EY4)
	4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1610	1-137-052-91	FILM	0.047MF	10%	400V
C1614	1-137-104-11	FILM	0.033MF	10%	250V
C1615	1-124-903-11	ELECT	1MF	20%	50V
C1616	1-137-038-91	FILM	0.001MF	10%	400V
C1617	1-137-124-91	FILM	0.0047MF	5%	63V
C1620	1-137-051-91	FILM	0.033MF	10%	400V
C1622	1-124-557-11	ELECT	1000MF	20%	25V
C1629	1-137-052-91	FILM	0.047MF	10%	400V
C1801	1-124-910-11	ELECT	47MF	20%	50V
C1802	1-124-910-11	ELECT	47MF	20%	50V
C1804	1-137-126-91	FILM	0.01MF	5%	63V
C1805	1-137-132-91	FILM	0.1MF	5%	63V
C1806	1-137-132-91	FILM	0.1MF	5%	63V
C1807	1-124-360-00	ELECT	1000MF	20%	16V
C1809	1-136-104-00	FILM	0.16MF	5%	200V
C1810	1-137-028-11	FILM	1MF	10%	63V
C1811	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1812	1-124-927-11	ELECT	4.7MF	20%	50V
C1813	1-137-130-91	FILM	0.047MF	5%	63V
C1814	1-124-907-11	ELECT	10MF	20%	50V
C1815	1-124-907-11	ELECT	10MF	20%	50V
C1816	1-126-233-11	ELECT	22MF	20%	50V
C1817	1-124-927-11	ELECT	4.7MF	20%	50V
C1818	1-124-910-11	ELECT	47MF	20%	50V
C1819	1-137-132-91	FILM	0.1MF	5%	63V
C1820	1-126-103-11	ELECT	470MF	20%	16V
C1822	1-137-043-11	FILM	0.0047MF	10%	400V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN0607	*1-568-879-51	PIN, CONNECTOR 4P
CN0622	*1-564-512-11	PLUG, CONNECTOR 9P
CN0630	*1-568-878-51	PIN, CONNECTOR 3P
CY1	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1603	8-719-979-85	DIODE EGP20G
D1604	8-719-947-06	DIODE RGP10JPKG23
D1801	8-719-981-01	DIODE ERA81-004
D1802	8-719-911-19	DIODE 1SS119
D1803	8-719-911-19	DIODE 1SS119
D1804	8-719-911-19	DIODE 1SS119
D1805	8-719-801-35	THYRISTOR SH0R3D42

REF.NO.	PART NO.	DESCRIPTION				REMARK
R070	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R501	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R502	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R503	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R504	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R505	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R506	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R507	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R509	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R510	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R511	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R512	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R513	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R514	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R515	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R516	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R517	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R518	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R519	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R520	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R521	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R522	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R523	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R524	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R525	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R526	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R527	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R528	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R529	1-216-696-11	METAL CHIP	75K	0.50%	1/10W	
R531	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R532	1-249-427-11	METAL	6.8K	5%	1/4W	
R533	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R535	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R536	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R538	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R539	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R540	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R541	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R544	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R545	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R546	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R547	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R551	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R552	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R553	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R559	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R560	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R564	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R565	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R566	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R567	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R568	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R570	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<VARIABLE RESISTOR>

RV506	1-241-766-21	RES, ADJ, CERMET 47K

****

*A-1638-027-A C BOARD, COMPLETE (KV-E2531B,E2531D)
****

*A-1638-025-A C BOARD, COMPLETE (KV-E2931B,E2931D)
****

REF.NO.	PART NO.	DESCRIPTION	REMARK

*A-1638-026-A C BOARD, COMPLETE (KV-E3431B,E3431D)
****

*4-341-752-01 EYELET (EY1~EY4)

<CAPACITOR>

C701	1-162-114-00	CERAMIC	0.0047MF		2KV
C703	1-123-946-00	ELECT	4.7MF	20%	250V
C704	1-130-202-00	FILM	0.022MF	5%	400V
C705	1-162-116-00	CERAMIC	680PF	10%	2KV
C708	1-163-197-00	CERAMIC CHIP	470PF	10%	50V
C709	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C710	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C711	1-101-880-00	CERAMIC	47PF	5%	50V
C712	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C713	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C714	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C716	1-124-122-11	ELECT	100MF	20%	50V

<CONNECTOR>

CN0002	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN0403	*1-564-511-11	PLUG, CONNECTOR 8P
CN0421	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P

<DIODE>

D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-911-19	DIODE 1SS119
D706	8-719-911-19	DIODE 1SS119
D707	8-719-911-19	DIODE 1SS119
D708	8-719-911-19	DIODE 1SS119
D709	8-719-911-19	DIODE 1SS119
D710	8-719-911-19	DIODE 1SS119
D713	8-719-911-55	DIODE U05G

<JACK>

J701	1-526-990-11	SOCKET, PICTURE TUBE

<COIL>

L701	1-410-667-31	INDUCTOR	22UH
L703	1-408-609-41	INDUCTOR	33UH
L705	1-408-609-41	INDUCTOR	33UH
L707	1-408-609-41	INDUCTOR	33UH

<TRANSISTOR>

Q701	8-729-906-70	TRANSISTOR BF871
Q702	8-729-906-70	TRANSISTOR BF871
Q703	8-729-906-70	TRANSISTOR BF871
Q704	8-729-906-70	TRANSISTOR BF871
Q705	8-729-906-70	TRANSISTOR BF871
Q706	8-729-906-70	TRANSISTOR BF871
Q707	8-729-200-17	TRANSISTOR 2SA1091-O
Q708	8-729-200-17	TRANSISTOR 2SA1091-O
Q709	8-729-200-17	TRANSISTOR 2SA1091-O
Q710	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q711	8-729-120-28	TRANSISTOR 2SC1623-L5L6

K J

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D261	8-719-911-19	DIODE 1SS119	
D262	8-719-911-19	DIODE 1SS119	
D270	8-719-921-69	DIODE MTZJ-9.1	
		<IC>	
IC270	8-759-072-99	IC TDA2052	
	4-201-023-01	SPACER, INSULATING; IC270	
	4-812-134-00	RIVET NYLON, 3.5; IC270	
		<TRANSISTOR>	
Q270	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
R269	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R270	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R271	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R272	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R273	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R274	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R275	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R276	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R277	1-217-477-00	FUSIBLE 4.7 5% 1W	F
R278	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R279	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R280	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R281	1-247-752-11	CARBON 1K 5% 1/2W	

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*A-1651-033-A J BOARD, COMPLETE
****
(KV-E2531B,E2531D,E2931B,E2931D)
*A-1651-039-A J BOARD, COMPLETE (KV-E3431B,E3431D)
****

		<CAPACITOR>	
C281	1-124-442-00	ELECT 330MF 20% 6.3V	
C291	1-101-005-00	CERAMIC 0.022MF 50V	
C292	1-101-005-00	CERAMIC 0.022MF 50V	
C295	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C296	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C298	1-101-005-00	CERAMIC 0.022MF 50V	
C901	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C902	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C904	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C905	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C906	1-101-004-00	CERAMIC 0.01MF 50V	
C907	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C908	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C909	1-101-004-00	CERAMIC 0.01MF 50V	
C910	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C911	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C912	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C913	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C914	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C915	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C916	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C917	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C918	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C919	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C920	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C921	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C922	1-124-477-11	ELECT 47MF 20% 16V	
C923	1-164-346-11	CERAMIC CHIP 1MF 16V	
C924	1-124-477-11	ELECT 47MF 20% 16V	
C925	1-124-477-11	ELECT 47MF 20% 16V	
C926	1-164-346-11	CERAMIC CHIP 1MF 16V	
C927	1-124-477-11	ELECT 47MF 20% 16V	
C928	1-124-477-11	ELECT 47MF 20% 16V	
C929	1-124-477-11	ELECT 47MF 20% 16V	
C930	1-124-477-11	ELECT 47MF 20% 16V	
C931	1-164-346-11	CERAMIC CHIP 1MF 16V	
C932	1-164-346-11	CERAMIC CHIP 1MF 16V	
C933	1-124-477-11	ELECT 47MF 20% 16V	
C934	1-124-477-11	ELECT 47MF 20% 16V	
C935	1-124-477-11	ELECT 47MF 20% 16V	
C936	1-164-346-11	CERAMIC CHIP 1MF 16V	
C937	1-164-346-11	CERAMIC CHIP 1MF 16V	
C938	1-124-477-11	ELECT 47MF 20% 16V	
		<CONNECTOR>	
CN1209	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN1210	*1-564-522-11	PLUG, CONNECTOR 7P	
CN1233	*1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D901	8-719-921-69	DIODE MTZJ-9.1	
D902	8-719-921-69	DIODE MTZJ-9.1	
D903	8-719-921-69	DIODE MTZJ-9.1	
D904	8-719-921-69	DIODE MTZJ-9.1	
D905	8-719-921-69	DIODE MTZJ-9.1	
D906	8-719-921-69	DIODE MTZJ-9.1	
D907	8-719-921-69	DIODE MTZJ-9.1	
D908	8-719-921-69	DIODE MTZJ-9.1	
D909	8-719-921-69	DIODE MTZJ-9.1	
D910	8-719-921-69	DIODE MTZJ-9.1	
D911	8-719-921-69	DIODE MTZJ-9.1	
D912	8-719-921-69	DIODE MTZJ-9.1	
D913	8-719-921-69	DIODE MTZJ-9.1	
D914	8-719-921-69	DIODE MTZJ-9.1	
D915	8-719-921-69	DIODE MTZJ-9.1	
D916	8-719-921-69	DIODE MTZJ-9.1	
D917	8-719-921-69	DIODE MTZJ-9.1	
D918	8-719-921-69	DIODE MTZJ-9.1	
D919	8-719-921-69	DIODE MTZJ-9.1	
D920	8-719-921-69	DIODE MTZJ-9.1	
D921	8-719-921-69	DIODE MTZJ-9.1	
D922	8-719-921-69	DIODE MTZJ-9.1	
D923	8-719-921-69	DIODE MTZJ-9.1	
D924	8-719-921-69	DIODE MTZJ-9.1	
D925	8-719-921-69	DIODE MTZJ-9.1	
D926	8-719-921-69	DIODE MTZJ-9.1	
D927	8-719-921-69	DIODE MTZJ-9.1	
D928	8-719-921-69	DIODE MTZJ-9.1	
		<JACK>	
J901	1-695-296-11	TERMINAL BLOCK, S	
J903	1-561-534-41	SOCKET 21P	
J904	1-695-296-11	TERMINAL BLOCK, S	

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1806	8-719-981-01	DIODE ERA81-004				
D1807	8-719-981-01	DIODE ERA81-004				
D1808	8-719-911-19	DIODE 1SS119				
D1809	8-719-911-19	DIODE 1SS119				
D1810	8-719-911-19	DIODE 1SS119				
D1811	8-719-300-33	DIODE RU-3AM				
D1812	8-719-911-19	DIODE 1SS119				

<IC>

REF.NO.	PART NO.	DESCRIPTION				REMARK
IC1603	8-759-987-16	IC LM393P				
IC1801	8-749-920-58	IC SI-3090CA				
	*4-341-752-01	EYELET; IC1801				
IC1802	8-752-052-88	IC CXA1526P				
IC1803	8-759-135-80	IC UPC358C				

<COIL>

REF.NO.	PART NO.	DESCRIPTION				REMARK
L1601	1-410-093-11	INDUCTOR	33MMH			
L1603	1-459-087-00	COIL,HCC DUST CORE 3.9MMH				
L1604	1-459-104-00	COIL, DUST CORE				
L1607	1-459-148-00	COIL				
	*4-341-751-01	EYELET; L1607				
L1801	1-459-592-11	COIL (WITH CORE) (PMC)				
L1802	1-459-087-00	COIL,HCC DUST CORE 3.9MMH				

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1610	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1613	8-729-011-02	TRANSISTOR 2SK1917				
Q1802	8-729-173-38	TRANSISTOR 2SA733-K				
Q1803	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1804	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1805	8-729-140-97	TRANSISTOR 2SB734-34				
Q1806	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1807	8-729-140-97	TRANSISTOR 2SB734-34				
Q1808	8-729-173-38	TRANSISTOR 2SA733-K				
Q1809	8-729-209-15	TRANSISTOR 2SD2012				
Q1810	8-729-140-96	TRANSISTOR 2SD774-34				
Q1811	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1812	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1813	8-729-119-78	TRANSISTOR 2SC2785-HFE				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR1	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1625	1-249-415-11	CARBON	680	5%	1/4W	
R1628	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1629	1-249-429-11	CARBON	10K	5%	1/4W	
R1630	1-249-435-11	CARBON	33K	5%	1/4W	
R1631	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1632	1-249-436-11	CARBON	39K	5%	1/4W	
R1633	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1634	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1637	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1641	1-249-411-11	CARBON	330	5%	1/4W	
R1666	1-212-865-00	FUSIBLE	22	5%	1/4W	F
R1801	1-249-409-11	CARBON	220	5%	1/4W	
R1802	1-249-409-11	CARBON	220	5%	1/4W	
R1804	1-247-891-00	CARBON	330K	5%	1/4W	
R1806	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1807	1-247-891-00	CARBON	330K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1808	1-215-461-00	METAL	47K	1%	1/4W	
R1809	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1810	1-249-413-11	CARBON	470	5%	1/4W	
R1811	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1812	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1813	1-249-417-11	CARBON	1K	5%	1/4W	
R1815	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1816	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1817	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1818	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1820	1-249-417-11	CARBON	1K	5%	1/4W	
R1821	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R1822	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1824	1-247-713-11	CARBON	1K	5%	1/4W	F
R1825	1-215-857-71	METAL OXIDE	10	5%	1W	F
R1826	1-249-404-00	CARBON	82	5%	1/4W	
R1827	1-215-875-71	METAL OXIDE	10K	5%	1W	F
R1828	1-249-441-11	CARBON	100K	5%	1/4W	
R1829	1-249-414-11	CARBON	560	5%	1/4W	
R1830	1-249-411-11	CARBON	330	5%	1/4W	
R1831	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1832	1-215-885-00	METAL OXIDE	68	5%	2W	F
R1834	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1835	1-249-393-11	CARBON	10	5%	1/4W	
R1836	1-249-435-11	CARBON	33K	5%	1/4W	
R1837	1-249-435-11	CARBON	33K	5%	1/4W	
R1838	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R1839	1-249-410-11	CARBON	270	5%	1/4W	
R1840	1-249-429-11	CARBON	10K	5%	1/4W	
R1841	1-249-437-11	CARBON	47K	5%	1/4W	
R1842	1-249-429-11	CARBON	10K	5%	1/4W	
R1843	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1846	1-249-429-11	CARBON	10K	5%	1/4W	
R1847	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1848	1-249-429-11	CARBON	10K	5%	1/4W	
R1849	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

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*1-643-003-11 K BOARD
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REF.NO.	PART NO.	DESCRIPTION				REMARK
	4-200-001-01	HOLDER, IC				

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C268	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C269	1-101-006-00	CERAMIC	0.047MF		50V	
C270	1-163-024-00	CERAMIC CHIP	0.018MF	10%	50V	
C271	1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V	
C272	1-126-233-11	ELECT	22MF	20%	50V	
C273	1-124-618-11	ELECT	2200MF	20%	35V	
C274	1-124-618-11	ELECT	2200MF	20%	35V	
C275	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C276	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C277	1-137-134-91	FILM	0.22MF	5%	63V	
C278	1-124-925-11	ELECT	2.2MF	20%	50V	
C279	1-124-122-11	ELECT	100MF	20%	35V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
CN1311	1-568-882-51	PIN, CONNECTOR 7P				
CN1312	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CN1333	*1-568-878-51	PIN, CONNECTOR 3P				

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C601	1-130-202-00	FILM	0.022MF	10%	400V
C603	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C605	1-124-910-11	ELECT	47MF	20%	50V
C608	1-124-903-11	ELECT	1MF	20%	50V
C612	1-130-480-00	MYLAR	0.0056MF	5%	50V
C613	1-129-722-00	FILM	0.047MF	10%	630V
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-126-943-11	ELECT	2200MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-162-116-00	CERAMIC	680PF	10%	2KV
C618	1-162-134-11	CERAMIC	470PF	10%	2KV
C619	1-102-030-00	CERAMIC	330PF	10%	500V
C620	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-128-320-11	ELECT	2200MF	20%	16V
C623	1-102-030-00	CERAMIC	330PF	10%	500V
C624	1-126-800-51	ELECT	2200MF	20%	35V
C625	1-126-800-51	ELECT	2200MF	20%	35V
C627	1-137-124-91	FILM	0.0047MF	5%	63V
C628	1-124-910-11	ELECT	47MF	20%	50V
C629	1-124-907-11	ELECT	10MF	20%	50V
C631	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C632	1-137-128-91	FILM	0.022MF	5%	63V
C633	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V
C635	1-102-212-00	CERAMIC	820PF	10%	500V
C636	1-137-132-91	FILM	0.1MF	5%	63V
C640	1-126-233-11	ELECT	22MF	20%	50V
C801	1-137-116-11	FILM	1MF	5%	200V
C803	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C804	1-137-130-91	FILM	0.047MF	5%	63V
C805	1-124-902-00	ELECT	0.47MF	20%	50V
C806	1-124-907-11	ELECT	10MF	20%	50V
C808	1-162-114-00	CERAMIC	0.0047MF		2KV
C809	1-124-808-51	ELECT	10MF	20%	200V
C810	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C812	1-162-318-11	CERAMIC	0.001MF	10%	500V
C813	1-108-704-11	MYLAR	0.1MF	10%	200V
C815	1-162-117-00	CERAMIC	100PF	10%	500V
C819	1-126-103-11	ELECT	470MF	20%	16V
C821	⚠ 1-137-514-11	FILM	0.021MF	2%	1.2KV
C822	⚠ 1-162-116-91	CERAMIC	680PF	10%	2KV
C823	1-124-902-00	ELECT	0.47MF	20%	50V
C824	1-137-124-91	FILM	0.0047MF	5%	63V
C825	⚠ 1-162-116-91	CERAMIC	680PF	10%	2KV
C826	⚠ 1-136-895-51	FILM	0.068MF	5%	630V
C827	1-137-094-11	FILM	0.047MF	10%	100V
C828	1-137-041-91	FILM	0.0033MF	10%	400V
C831	1-123-932-00	ELECT	4.7MF	20%	160V
C832	1-124-910-11	ELECT	47MF	20%	50V
C833	1-137-118-11	FILM	1.8MF	5%	200V
C834	1-137-513-11	FILM	0.62MF	5%	200V
C835	1-124-480-11	ELECT	470MF	20%	25V
C836	1-102-228-00	CERAMIC	470PF	10%	500V
C837	1-137-038-91	FILM	0.001MF	10%	400V
C838	1-137-146-11	FILM	0.15MF	10%	250V
C839	1-123-950-00	ELECT	47MF	20%	250V
C840	1-124-480-11	ELECT	470MF	20%	25V
C841	1-102-228-00	CERAMIC	470PF	10%	500V
C842	1-137-053-91	FILM	0.068MF	10%	400V
C846	1-123-024-21	ELECT	33MF		160V
C851	1-137-043-11	FILM	0.0047MF	10%	400V
C852	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C853	1-124-910-11	ELECT	47MF	20%	50V
C854	⚠ 1-162-115-91	CERAMIC	330PF	10%	2KV
C857	1-124-902-00	ELECT	0.47MF	20%	50V
C861	1-137-132-91	FILM	0.1MF	5%	63V
C863	1-137-094-11	FILM	0.047MF	10%	100V
C866	1-137-038-91	FILM	0.001MF	10%	400V
C868	1-137-127-91	FILM	0.015MF	5%	63V
C869	1-137-098-11	FILM	0.1MF	10%	100V
C870	1-137-120-91	FILM	0.001MF	5%	63V
C871	1-130-651-00	FILM	0.001MF	2%	100V
C872	1-124-907-11	ELECT	10MF	20%	50V
C873	1-137-120-91	FILM	0.001MF	5%	63V
C875	1-102-038-00	CERAMIC	0.001MF		500V
C877	1-124-902-00	ELECT	0.47MF	20%	50V
C878	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1502	1-124-903-11	ELECT	1MF	20%	50V
C1503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1504	1-124-480-11	ELECT	470MF	20%	25V
C1505	1-124-911-11	ELECT	220MF	20%	50V
C1506	1-137-135-91	FILM	0.33MF	5%	63V
C1507	1-137-031-11	FILM	0.22MF	10%	100V
C1508	1-124-480-11	ELECT	470MF	20%	25V
C1509	1-124-767-00	ELECT	2.2MF	20%	50V
C1511	1-124-907-11	ELECT	10MF	20%	50V
C1512	1-124-006-11	ELECT	10MF	20%	25V
C1514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN0004	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN0009	*1-568-878-51	PIN, CONNECTOR 3P
CN0010	*1-568-877-51	PIN, CONNECTOR 2P
CN0504	*1-568-882-51	PIN, CONNECTOR 7P
CN0505	*1-568-880-51	PIN, CONNECTOR 5P
CN0506	*1-568-880-61	PIN, CONNECTOR 5P
CN0519	*1-568-878-51	PIN, CONNECTOR 3P
CN0521	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CN0524	*1-568-878-51	PIN, CONNECTOR 3P
CN0525	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P
CN0526	*1-568-881-51	PIN, CONNECTOR 6P
CN0529	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN5521	*1-568-878-51	PIN, CONNECTOR 3P
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D602	8-719-300-33	DIODE RU-3AM
D606	8-719-300-33	DIODE RU-3AM
D608	8-719-300-33	DIODE RU-3AM
D610	1-806-660-11	DIODE ESAB85-009
D611	8-719-029-04	DIODE D5L60
D612	8-719-510-09	DIODE D10SC6M
D613	8-719-920-68	DIODE ESAB92-02
D614	8-719-920-68	DIODE ESAB92-02
D616	8-719-110-31	DIODE RD12ES-B2
D619	8-719-400-18	DIODE MA152WK
D620	8-719-911-19	DIODE 1SS119
D624	8-719-312-40	DIODE R2K
D801	8-719-018-82	DIODE RGP02-20EL-6394
D802	8-719-300-33	DIODE RU-3AM
D804	8-719-400-18	DIODE MA152WK

REF.NO.	PART NO.	DESCRIPTION				REMARK
J905	1-695-293-11	SOCKET 21P				
J906	1-695-296-11	TERMINAL BLOCK, S				
J907	1-695-293-11	SOCKET 21P				
		<COIL>				
L291	1-402-711-11	INDUCTOR, WIDEBAND				
L292	1-402-711-11	INDUCTOR, WIDEBAND				
L293	1-402-711-11	INDUCTOR, WIDEBAND				
		<TRANSISTOR>				
Q281	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q282	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q283	8-729-216-22	TRANSISTOR 2SA1162-G				
		<RESISTOR>				
JR201	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR901	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR905	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR906	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR909	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR910	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR911	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR915	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR917	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR918	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR919	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR920	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR921	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR923	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR924	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR926	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR927	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR928	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR935	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR939	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR940	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR942	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR944	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR946	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR947	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR952	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR954	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR955	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R282	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R283	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R284	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R286	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R287	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W	
R288	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W	
R289	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R290	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W	
R291	1-249-413-11	CARBON	470	5%	1/4W	
R292	1-249-413-11	CARBON	470	5%	1/4W	
R901	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R902	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R903	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R904	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R905	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R906	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R907	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R908	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R909	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R910	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R911	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R913	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R914	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R915	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R916	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R917	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R919	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R920	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R921	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R922	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R923	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R924	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R925	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R926	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R927	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R928	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R929	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R930	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R931	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W	
R932	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R933	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R934	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R935	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R936	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R937	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R938	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R939	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R940	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R941	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R942	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R943	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R944	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R945	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R946	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R947	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R948	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R949	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R950	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R951	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R952	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R953	1-216-188-00	METAL GLAZE	390	5%	1/8W	
R954	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R955	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R956	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R957	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R958	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R959	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R960	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R961	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	

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PART NO.	DESCRIPTION
*A-1642-075-A	D BOARD, COMPLETE (KV-E2531B,E2531D) ******************
4-200-001-01	HOLDER, IC
4-201-023-01	SPACER, INSULATING
*4-341-751-01	EYELET
*4-341-752-01	EYELET
*4-368-683-01	SPRING
*4-389-343-01	SPRING
4-812-134-00	RIVET NYLON, 3.5

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R628	1-215-464-00	METAL	62K	1%	1/4W	
R629	1-215-464-00	METAL	62K	1%	1/4W	
R630	1-249-421-11	CARBON	2.2K	5%	1/4W	
R631	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R633	1-249-415-11	CARBON	680	5%	1/4W	
R634	1-215-477-00	METAL	220K	1%	1/4W	
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-452-11	METAL OXIDE	180	5%	2W	F
R637	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R640	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R801	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R802	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R804	1-217-778-11	FUSIBLE	1K	5%	1W	F
R805	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R806	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R807	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R808	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R809	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R811	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R812	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R813	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R814	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R815	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R819	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R820	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R821	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R822	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R823	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R824	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R828	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R829	1-249-429-11	CARBON	10K	5%	1/4W	F
R830	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R832	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R833	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R834	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R835	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R836	1-216-242-00	METAL GLAZE	68K	5%	1/8W	
R837	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R838	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R839	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R841	1-249-397-11	CARBON	22	5%	1/4W	F
R842	1-215-890-11	METAL OXIDE	470	5%	2W	F
R846	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R847	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R849	1-215-908-00	METAL OXIDE	33	5%	3W	F
R851	1-247-743-11	CARBON	220	5%	1/2W	F
R852	1-249-389-11	CARBON	4.7	5%	1/4W	F
R853	1-249-443-11	CARBON	0.47	5%	1/4W	F
R854	1-249-443-11	CARBON	0.47	5%	1/4W	F
R855	1-202-818-00	SOLID	1K	10%	1/2W	
R858	1-249-425-11	CARBON	4.7K	5%	1/4W	
R864	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R865	1-247-901-11	CARBON	820K	5%	1/4W	
R866	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R867	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R868	1-249-435-11	CARBON	33K	5%	1/4W	
R871	1-249-493-11	CARBON	56K	5%	1/2W	
R872	1-249-393-11	CARBON	10	5%	1/4W	F
R873	1-249-393-11	CARBON	10	5%	1/4W	F
R876	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R877	1-215-880-00	METAL OXIDE	10	5%	2W	F
R878	1-215-883-11	METAL OXIDE	33	5%	2W	F
R884	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R889	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R893	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R894	1-216-264-00	METAL GLAZE	560K	5%	1/8W	
R895	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R897	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R898	1-216-262-00	METAL GLAZE	470K	5%	1/8W	
R1501	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R1502	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R1503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1504	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1508	1-216-684-11	METAL CHIP	24K	0.50%	1/10W	
R1509	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1510	1-249-382-11	CARBON	1.2	5%	1/4W	F
R1511	1-215-887-00	METAL OXIDE	150	5%	2W	F
R1512	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R1513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1551	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

<VARIABLE RESISTOR>

RV601	1-241-628-11	RES, ADJ, CARBON 2.2K

<TRANSFORMER>

T601	⚠ 1-450-997-11	S.R.T (SMT7)
T801	⚠ 1-453-118-11	TRANSFORMER ASSY, FLYBACK (UX-2600A2)
T803	1-437-090-00	HDT

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*A-1642-074-A D BOARD, COMPLETE (KV-E2931B,E2931D)
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4-200-001-01	HOLDER, IC
4-201-023-01	SPACER, INSULATING
*4-341-751-01	EYELET
*4-341-752-01	EYELET
*4-368-683-01	SPRING
*4-389-343-01	SPRING
4-812-134-00	RIVET NYLON, 3.5

<CAPACITOR>

C601	1-130-202-00	FILM	0.022MF	10%	400V
C603	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C605	1-124-910-11	ELECT	47MF	20%	50V
C608	1-124-903-11	ELECT	1MF	20%	50V
C612	1-137-125-91	FILM	0.0068MF	5%	63V
C613	1-129-722-00	FILM	0.047MF	10%	630V
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-126-943-11	ELECT	2200MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-162-116-00	CERAMIC	680PF	10%	2KV
C618	1-162-134-11	CERAMIC	470PF	10%	2KV
C619	1-102-030-00	CERAMIC	330PF	10%	500V
C620	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-128-320-11	ELECT	2200MF	20%	16V

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D808	8-719-109-88	DIODE RD5.6ES-B1	
D809	8-719-110-03	DIODE RD7.5ES-B2	
D812	8-719-911-55	DIODE U05G	
D813	8-719-911-55	DIODE U05G	
D814	8-719-028-29	DIODE RU30ALFS1	
D815	8-719-300-33	DIODE RU-3AM	
D816	8-719-979-85	DIODE EGP20G	
D818	8-719-109-93	DIODE RD6.2ES-B2	
D821	8-719-400-18	DIODE MA152WK	
D822	8-719-982-20	DIODE MTZJ-30B	
D824	8-719-976-64	DIODE RGP02-17	
D825	8-719-400-18	DIODE MA152WK	
D826	8-719-400-18	DIODE MA152WK	
D827	8-719-983-50	DIODE MTZJ-T-72-2.2A	
D828	8-719-911-19	DIODE 1SS119	
D830	8-719-400-18	DIODE MA152WK	
D831	8-719-400-18	DIODE MA152WK	
D832	8-719-400-18	DIODE MA152WK	
D833	8-719-400-18	DIODE MA152WK	
D1501	8-719-400-18	DIODE MA152WK	
D1503	8-719-911-55	DIODE U05G	
D1504	8-719-982-03	DIODE MTZJ-3.6A	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601	8-759-073-29	IC TDA4605-3	
IC602	8-759-908-15	IC TL431CLP	
IC603	8-749-923-44	IC SFH617G-1	
IC801	8-759-987-16	IC LM393P	
IC802	8-759-987-16	IC LM393P	
IC803	8-759-081-31	IC MC78L12ACPRP	
IC1501	8-759-506-46	IC TDA8179S	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-396-41	FERRITE BEAD INDUCTOR	
L605	1-459-442-00	COIL (WITH CORE)	
L606	1-459-442-00	COIL (WITH CORE)	
L609	1-410-396-41	FERRITE BEAD INDUCTOR	
L622	1-412-533-21	INDUCTOR 47UH	
L623	1-412-533-21	INDUCTOR 47UH	
L803	1-420-872-00	COIL, AIR CORE	
L808	1-412-549-11	INDUCTOR 1MMH	
L809	1-459-111-00	COIL, DRAM CORE (CDI)	
L810	1-460-197-11	COIL, FERRITE (PMC)	
L811	1-412-519-11	INDUCTOR 3.3UH	
L812	1-412-519-11	INDUCTOR 3.3UH	
L813	1-412-519-11	INDUCTOR 3.3UH	
L817	1-460-196-11	COIL, HORIZONTAL LINEARITY	
L1501	1-412-531-31	INDUCTOR 33UH	
L1502	1-412-525-21	INDUCTOR 10UH	
L1503	1-412-531-31	INDUCTOR 33UH	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS601⚠	1-532-686-91	LINK, IC 2.7A	
PS602⚠	1-532-686-91	LINK, IC 2.7A	
PS603⚠	1-532-686-91	LINK, IC 2.7A	
PS604⚠	1-532-686-91	LINK, IC 2.7A	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601	8-729-016-14	TRANSISTOR BUZ91A-E3155	
Q602	8-729-177-22	TRANSISTOR 2SB772-Q	
Q603	8-729-900-53	TRANSISTOR DTC114EK	
Q610	8-729-216-22	TRANSISTOR 2SA1162-G	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-016-32	TRANSISTOR 2SC4927-01	
Q802	8-729-140-97	TRANSISTOR 2SB734-34	
Q804	8-729-216-22	TRANSISTOR 2SA1162-G	
Q805	8-729-216-22	TRANSISTOR 2SA1162-G	
Q806	8-729-011-00	TRANSISTOR 2SK1916-02F87	
Q807	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q812	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q813	8-729-140-96	TRANSISTOR 2SD774-34	
Q818	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1502	8-729-901-01	TRANSISTOR DTC144EK	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR001	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR002	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR003	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR004	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR005	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR500	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR501	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR502	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR503	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR504	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR505	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR506	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR507	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR508	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR509	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR510	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR511	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JW208	1-217-587-00	RES, SHORT 0.01			1/4W	
R601	1-216-360-11	METAL OXIDE	8.2	5%	1W	F
R602	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R603	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R604	1-247-883-00	CARBON	150K	5%	1/4W	
R605	1-216-313-00	METAL GLAZE	8.2	5%	1/10W	
R606	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R607	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R608	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R609	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R610	1-247-885-00	CARBON	180K	5%	1/4W	
R611	1-249-405-11	CARBON	100	5%	1/4W	
R612	1-247-894-11	CARBON	430K	5%	1/4W	
R613	1-216-260-00	METAL GLAZE	390K	5%	1/8W	
R614	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R615	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R617	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R618	1-216-449-11	METAL OXIDE	56	5%	2W	F
R620	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R621	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R622	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R625	1-216-449-11	METAL OXIDE	56	5%	2W	F
R626	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R627	1-249-398-11	CARBON	27	5%	1/4W	F

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Ne les remplacer que par une piece portant le numero specifie.

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Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1503	8-719-911-55	DIODE U05G	
D1504	8-719-982-03	DIODE MTZJ-3.6A	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601	8-759-073-29	IC TDA4605-3	
IC602	8-759-908-15	IC TL431CLP	
IC603	8-749-923-44	IC SFH617G-1	
IC801	8-759-987-16	IC LM393P	
IC802	8-759-987-16	IC LM393P	
IC803	8-759-081-31	IC MC78L12ACPRP	
IC1501	8-759-506-46	IC TDA8179S	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-396-41	FERRITE BEAD INDUCTOR	
L605	1-459-442-00	COIL (WITH CORE)	
L606	1-459-442-00	COIL (WITH CORE)	
L609	1-410-396-41	FERRITE BEAD INDUCTOR	
L622	1-412-533-21	INDUCTOR 47UH	
L623	1-412-533-21	INDUCTOR 47UH	
L803	1-420-872-00	COIL, AIR CORE	
L808	1-412-549-11	INDUCTOR 1MMH	
L809	1-459-111-00	COIL, DRAM CORE (CDI)	
L810	1-460-197-11	COIL, FERRITE (PMC)	
L811	1-412-519-11	INDUCTOR 3.3UH	
L812	1-412-519-11	INDUCTOR 3.3UH	
L813	1-412-519-11	INDUCTOR 3.3UH	
L817	1-460-196-11	COIL, HORIZONTAL LINEARITY	
L1501	1-412-531-31	INDUCTOR 33UH	
L1502	1-412-525-21	INDUCTOR 10UH	
L1503	1-412-531-31	INDUCTOR 33UH	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS601 ⚠	1-532-686-91	LINK, IC 2.7A	
PS602 ⚠	1-532-686-91	LINK, IC 2.7A	
PS603 ⚠	1-532-686-91	LINK, IC 2.7A	
PS604 ⚠	1-532-686-91	LINK, IC 2.7A	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601	8-729-016-14	TRANSISTOR BUZ91A-E3155	
Q602	8-729-177-22	TRANSISTOR 2SB772-Q	
Q603	8-729-900-53	TRANSISTOR DTC114EK	
Q610	8-729-216-22	TRANSISTOR 2SA1162-G	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-016-32	TRANSISTOR 2SC4927-01	
Q802	8-729-140-97	TRANSISTOR 2SB734-34	
Q804	8-729-216-22	TRANSISTOR 2SA1162-G	
Q805	8-729-216-22	TRANSISTOR 2SA1162-G	
Q806	8-729-011-00	TRANSISTOR 2SK1916-02F87	
Q807	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q812	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q813	8-729-140-96	TRANSISTOR 2SD774-34	
Q818	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1502	8-729-901-01	TRANSISTOR DTC144EK	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR001	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR002	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR003	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR004	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR005	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR500	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR501	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR502	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR503	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR504	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR505	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR506	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR507	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR508	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR509	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR510	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR511	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JW208	1-217-587-00	RES, SHORT	0.01		1/4W	
R601	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R602	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R603	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R604	1-247-883-00	CARBON	150K	5%	1/4W	
R605	1-216-313-00	METAL GLAZE	8.2	5%	1/10W	
R606	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R607	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R608	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R609	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R610	1-247-885-00	CARBON	180K	5%	1/4W	
R611	1-249-405-11	CARBON	100	5%	1/4W	
R612	1-247-894-11	CARBON	430K	5%	1/4W	
R613	1-216-260-00	METAL GLAZE	390K	5%	1/8W	
R614	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R615	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R617	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R618	1-216-449-11	METAL OXIDE	56	5%	2W	F
R620	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R621	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R622	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R625	1-216-449-11	METAL OXIDE	56	5%	2W	F
R626	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R627	1-249-398-11	CARBON	27	5%	1/4W	F
R628	1-215-464-00	METAL	62K	1%	1/4W	
R629	1-215-464-00	METAL	62K	1%	1/4W	
R630	1-249-421-11	CARBON	2.2K	5%	1/4W	
R631	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R633	1-249-415-11	CARBON	680	5%	1/4W	
R634	1-215-477-00	METAL	220K	1%	1/4W	
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-452-11	METAL OXIDE	180	5%	2W	F
R637	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R640	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R801	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R802	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R804	1-217-778-11	FUSIBLE	1K	5%	1W	F
R805	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R806	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R807	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R808	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C623	1-102-030-00	CERAMIC	330PF	10%	500V
C624	1-126-800-51	ELECT	2200MF	20%	35V
C625	1-126-800-51	ELECT	2200MF	20%	35V
C627	1-137-124-91	FILM	0.0047MF	5%	63V
C628	1-124-910-11	ELECT	47MF	20%	50V
C629	1-124-907-11	ELECT	10MF	20%	50V
C631	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C632	1-137-128-91	FILM	0.022MF	5%	63V
C633	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V
C636	1-137-132-91	FILM	0.1MF	5%	63V
C640	1-126-233-11	ELECT	22MF	20%	50V
C801	1-137-116-11	FILM	1MF	5%	200V
C803	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C804	1-137-130-91	FILM	0.047MF	5%	63V
C805	1-124-902-00	ELECT	0.47MF	20%	50V
C806	1-124-907-11	ELECT	10MF	20%	50V
C808	1-162-114-00	CERAMIC	0.0047MF		2KV
C809	1-124-808-51	ELECT	10MF	20%	200V
C810	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C812	1-162-318-11	CERAMIC	0.001MF	10%	500V
C813	1-108-704-11	MYLAR	0.1MF	10%	200V
C815	1-162-117-00	CERAMIC	100PF	10%	500V
C819	1-126-103-11	ELECT	470MF	20%	16V
C821	⚠ 1-137-514-11	FILM	0.021MF	2%	1.2KV
C822	⚠ 1-162-116-91	CERAMIC	680PF	10%	2KV
C823	1-124-902-00	ELECT	0.47MF	20%	50V
C824	1-137-122-91	FILM	0.0022MF	5%	63V
C825	⚠ 1-162-116-91	CERAMIC	680PF	10%	2KV
C826	⚠ 1-136-895-51	FILM	0.068MF	5%	630V
C827	1-137-098-11	FILM	0.1MF	10%	100V
C828	1-137-041-91	FILM	0.0033MF	10%	400V
C831	1-123-932-00	ELECT	4.7MF	20%	160V
C832	1-124-910-11	ELECT	47MF	20%	50V
C833	1-137-119-11	FILM	2MF	5%	200V
C834	1-137-115-11	FILM	0.82MF	5%	200V
C835	1-124-480-11	ELECT	470MF	20%	25V
C836	1-102-228-00	CERAMIC	470PF	10%	500V
C837	1-137-038-91	FILM	0.001MF	10%	400V
C838	1-137-146-11	FILM	0.15MF	10%	250V
C839	1-123-950-00	ELECT	47MF	20%	250V
C840	1-124-480-11	ELECT	470MF	20%	25V
C841	1-102-228-00	CERAMIC	470PF	10%	500V
C842	1-137-053-91	FILM	0.068MF	10%	400V
C846	1-123-024-21	ELECT	33MF		160V
C851	1-137-120-91	FILM	0.001MF	5%	63V
C852	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C853	1-124-910-11	ELECT	47MF	20%	50V
C854	⚠ 1-162-135-91	CERAMIC	560PF	10%	2KV
C857	1-124-902-00	ELECT	0.47MF	20%	50V
C861	1-137-132-91	FILM	0.1MF	5%	63V
C863	1-137-094-11	FILM	0.047MF	10%	100V
C868	1-137-127-91	FILM	0.015MF	5%	63V
C869	1-137-098-11	FILM	0.1MF	10%	100V
C870	1-137-120-91	FILM	0.001MF	5%	63V
C871	1-130-651-00	FILM	0.001MF	2%	100V
C872	1-124-907-11	ELECT	10MF	20%	50V
C873	1-137-120-91	FILM	0.001MF	5%	63V
C875	1-102-038-00	CERAMIC	0.001MF		500V
C877	1-124-902-00	ELECT	0.47MF	20%	50V
C878	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1502	1-124-903-11	ELECT	1MF	20%	50V
C1503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1504	1-124-480-11	ELECT	470MF	20%	25V
C1505	1-124-911-11	ELECT	220MF	20%	50V
C1506	1-137-135-91	FILM	0.33MF	5%	63V
C1507	1-137-032-91	FILM	0.27MF	10%	100V
C1508	1-124-480-11	ELECT	470MF	20%	25V
C1509	1-124-767-00	ELECT	2.2MF	20%	50V
C1511	1-124-907-11	ELECT	10MF	20%	50V
C1512	1-124-006-11	ELECT	10MF	20%	25V
C1514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
		<CONNECTOR>			
CN0004	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
CN0009	*1-568-878-51	PIN, CONNECTOR 3P			
CN0010	*1-568-877-51	PIN, CONNECTOR 2P			
CN0504	*1-568-882-51	PIN, CONNECTOR 7P			
CN0505	*1-568-880-51	PIN, CONNECTOR 5P			
CN0506	*1-568-880-61	PIN, CONNECTOR 5P			
CN0519	*1-568-878-51	PIN, CONNECTOR 3P			
CN0521	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN0524	*1-568-878-51	PIN, CONNECTOR 3P			
CN0525	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P			
CN0526	*1-568-881-51	PIN, CONNECTOR 6P			
CN0529	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN5521	*1-568-878-51	PIN, CONNECTOR 3P			
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P			
		<DIODE>			
D602	8-719-300-33	DIODE RU-3AM			
D606	8-719-300-33	DIODE RU-3AM			
D608	8-719-300-33	DIODE RU-3AM			
D610	1-806-660-11	DIODE ESAB85-009			
D611	8-719-029-04	DIODE D5L60			
D612	8-719-510-09	DIODE D10SC6M			
D613	8-719-920-68	DIODE ESAB92-02			
D614	8-719-920-68	DIODE ESAB92-02			
D616	8-719-110-31	DIODE RD12ES-B2			
D619	8-719-400-18	DIODE MA152WK			
D620	8-719-911-19	DIODE 1SS119			
D624	8-719-312-40	DIODE R2K			
D801	8-719-018-82	DIODE RGP02-20EL-6394			
D802	8-719-300-33	DIODE RU-3AM			
D804	8-719-400-18	DIODE MA152WK			
D808	8-719-109-88	DIODE RD5.6ES-B1			
D809	8-719-110-03	DIODE RD7.5ES-B2			
D812	8-719-911-55	DIODE U05G			
D813	8-719-911-55	DIODE U05G			
D814	8-719-028-29	DIODE RU30ALFS1			
D815	8-719-300-33	DIODE RU-3AM			
D816	8-719-979-85	DIODE EGP20G			
D818	8-719-109-93	DIODE RD6.2ES-B2			
D821	8-719-400-18	DIODE MA152WK			
D822	8-719-982-20	DIODE MTZJ-30B			
D824	8-719-976-64	DIODE RGP02-17			
D825	8-719-400-18	DIODE MA152WK			
D826	8-719-400-18	DIODE MA152WK			
D827	8-719-983-50	DIODE MTZJ-T-72-2.2A			
D828	8-719-911-19	DIODE 1SS119			
D830	8-719-400-18	DIODE MA152WK			
D831	8-719-400-18	DIODE MA152WK			
D832	8-719-400-18	DIODE MA152WK			
D833	8-719-400-18	DIODE MA152WK			
D1501	8-719-400-18	DIODE MA152WK			

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C819	1-126-103-11	ELECT	470MF	20%	16V
C821	⚠ 1-137-065-11	FILM	0.024MF	3%	1.2KV
C822	⚠ 1-162-116-91	CERAMIC	680PF	10%	2KV
C823	1-124-903-11	ELECT	1MF	20%	50V
C824	1-137-122-91	FILM	0.0022MF	5%	63V
C825	⚠ 1-162-116-91	CERAMIC	680PF	10%	2KV
C826	⚠ 1-136-316-51	FILM	0.056MF	5%	630V
C827	1-137-132-91	FILM	0.1MF	5%	63V
C828	1-137-041-91	FILM	0.0033MF	10%	400V
C831	1-123-932-00	ELECT	4.7MF	20%	160V
C832	1-124-910-11	ELECT	47MF	20%	50V
C833	1-137-118-11	FILM	1.8MF	5%	200V
C834	1-136-569-11	FILM	1.2MF	5%	200V
C835	1-124-480-11	ELECT	470MF	20%	25V
C836	1-102-228-00	CERAMIC	470PF	10%	500V
C837	1-137-038-91	FILM	0.001MF	10%	400V
C838	1-137-146-11	FILM	0.15MF	10%	250V
C839	1-123-950-00	ELECT	47MF	20%	250V
C840	1-124-480-11	ELECT	470MF	20%	25V
C841	1-102-228-00	CERAMIC	470PF	10%	500V
C842	1-137-053-91	FILM	0.068MF	10%	400V
C846	1-123-024-21	ELECT	33MF		160V
C851	1-137-120-91	FILM	0.001MF	5%	63V
C852	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C853	1-124-910-11	ELECT	47MF	20%	50V
C854	⚠ 1-162-115-91	CERAMIC	330PF	10%	2KV
C857	1-124-902-00	ELECT	0.47MF	20%	50V
C861	1-137-132-91	FILM	0.1MF	5%	63V
C868	1-137-127-91	FILM	0.015MF	5%	63V
C869	1-137-132-91	FILM	0.1MF	5%	63V
C870	1-137-120-91	FILM	0.001MF	5%	63V
C871	1-130-651-00	FILM	0.001MF	2%	100V
C872	1-124-907-11	ELECT	10MF	20%	50V
C873	1-137-120-91	FILM	0.001MF	5%	63V
C875	1-102-038-00	CERAMIC	0.001MF		500V
C877	1-124-902-00	ELECT	0.47MF	20%	50V
C878	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C0603	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1502	1-124-903-11	ELECT	1MF	20%	50V
C1503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1504	1-124-480-11	ELECT	470MF	20%	25V
C1505	1-124-911-11	ELECT	220MF	20%	50V
C1506	1-137-135-91	FILM	0.33MF	5%	63V
C1507	1-137-032-91	FILM	0.27MF	10%	100V
C1508	1-124-480-11	ELECT	470MF	20%	25V
C1509	1-124-767-00	ELECT	2.2MF	20%	50V
C1511	1-124-907-11	ELECT	10MF	20%	50V
C1512	1-124-006-11	ELECT	10MF	20%	25V
C1513	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C1514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0004	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN0009	*1-568-878-51	PIN, CONNECTOR 3P	
CN0010	*1-568-877-51	PIN, CONNECTOR 2P	
CN0504	*1-568-882-51	PIN, CONNECTOR 7P	
CN0505	*1-568-880-51	PIN, CONNECTOR 5P	
CN0506	*1-568-880-61	PIN, CONNECTOR 5P	
CN0519	*1-568-878-51	PIN, CONNECTOR 3P	
CN0521	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN0522	*1-564-512-11	PLUG, CONNECTOR 9P	
CN0524	*1-568-878-51	PIN, CONNECTOR 3P	
CN0525	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P	
CN0526	*1-568-881-51	PIN, CONNECTOR 6P	
CN0529	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN5521	*1-568-878-51	PIN, CONNECTOR 3P	
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D602	8-719-300-33	DIODE RU-3AM	
D606	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D610	1-806-660-11	DIODE ESAB85-009	
	4-382-854-11	SCREW (M3X10), P, SW (+); D610	
D611	8-719-029-04	DIODE D5L60	
	4-382-854-11	SCREW (M3X10), P, SW (+); D611	
D612	8-719-510-09	DIODE D10SC6M	
	4-382-854-11	SCREW (M3X10), P, SW (+); D612	
D613	8-719-920-68	DIODE ESAB92-02	
	4-382-854-11	SCREW (M3X10), P, SW (+); D613	
D614	8-719-920-68	DIODE ESAB92-02	
	4-382-854-11	SCREW (M3X10), P, SW (+); D614	
D616	8-719-110-31	DIODE RD12ES-B2	
D619	8-719-400-18	DIODE MA152WK	
D620	8-719-911-19	DIODE 1SS119	
D624	8-719-312-40	DIODE R2K	
D801	8-719-018-82	DIODE RGP02-20EL-6394	
D802	8-719-300-33	DIODE RU-3AM	
D804	8-719-400-18	DIODE MA152WK	
D808	8-719-109-88	DIODE RD5.6ES-B1	
D809	8-719-110-03	DIODE RD7.5ES-B2	
D811	⚠ 8-719-906-40	DIODE ERB44-06	
D812	8-719-911-55	DIODE U05G	
D813	8-719-911-55	DIODE U05G	
D814	8-719-028-29	DIODE RU30ALFS1	
D815	8-719-300-33	DIODE RU-3AM	
D816	8-719-979-85	DIODE EGP20G	
D818	8-719-109-93	DIODE RD6.2ES-B2	
D821	8-719-400-18	DIODE MA152WK	
D822	8-719-982-20	DIODE MTZJ-30B	
D824	8-719-976-64	DIODE RGP02-17	
D825	8-719-400 18	DIODE MA152WK	
D826	8-719-400-18	DIODE MA152WK	
D827	8-719-983-50	DIODE MTZJ-T-72-2.2A	
D828	8-719-911-19	DIODE 1SS119	
D830	8-719-400-18	DIODE MA152WK	
D831	8-719-400-18	DIODE MA152WK	
D832	8-719-400-18	DIODE MA152WK	
D833	8-719-400-18	DIODE MA152WK	
D1501	8-719-400-18	DIODE MA152WK	
D1503	8-719-911-55	DIODE U05G	
D1504	8-719-982-03	DIODE MTZJ-3.6A	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601	8-759-073-29	IC TDA4605-3	
IC602	8-759-908-15	IC TL431CLP	
IC603	8-749-923-44	IC SFH617G-1	
IC801	8-759-987-16	IC LM393P	
IC802	8-759-987-16	IC LM393P	
IC803	8-759-081-31	IC MC78L12ACPRP	
IC1501	8-759-506-46	IC TDA8179S	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R809	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R811	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R812	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R813	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R814	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R815	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R819	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R820	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R821	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R822	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R823	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R824	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R828	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R829	1-249-429-11	CARBON	10K	5%	1/4W	F
R830	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R832	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R833	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R834	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R835	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R836	1-216-242-00	METAL GLAZE	68K	5%	1/8W	
R837	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R838	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R839	1-216-062-00	METAL GLAZE	3.6K	5%	1/10W	
R841	1-249-397-11	CARBON	22	5%	1/4W	F
R842	1-215-890-11	METAL OXIDE	470	5%	2W	F
R845	1-218-772-11	METAL CHIP	680K	0.50%	1/10W	
R846	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R847	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R849	1-215-881-11	METAL OXIDE	15	5%	2W	F
R851	1-247-743-11	CARBON	220	5%	1/2W	F
R852	1-249-389-11	CARBON	4.7	5%	1/4W	F
R853	1-249-443-11	CARBON	0.47	5%	1/4W	F
R854	1-249-443-11	CARBON	0.47	5%	1/4W	F
R855	1-202-818-00	SOLID	1K	10%	1/2W	
R858	1-249-425-11	CARBON	4.7K	5%	1/4W	
R864	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R865	1-247-901-11	CARBON	820K	5%	1/4W	
R866	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R867	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R868	1-249-431-11	CARBON	15K	5%	1/4W	
R871	1-249-493-11	CARBON	56K	5%	1/2W	
R872	1-249-393-11	CARBON	10	5%	1/4W	F
R873	1-249-393-11	CARBON	10	5%	1/4W	F
R876	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R877	1-215-880-00	METAL OXIDE	10	5%	2W	F
R878	1-215-883-11	METAL OXIDE	33	5%	2W	F
R884	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R889	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R893	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R894	1-216-264-00	METAL GLAZE	560K	5%	1/8W	
R895	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R897	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R898	1-216-262-00	METAL GLAZE	470K	5%	1/8W	
R1501	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R1502	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W	
R1503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1504	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1508	1-216-684-11	METAL CHIP	24K	0.50%	1/10W	
R1509	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1510	1-249-382-11	CARBON	1.2	5%	1/4W	F
R1511	1-215-887-00	METAL OXIDE	150	5%	2W	F
R1512	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R1513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1551	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV601	1-241-628-11	RES, ADJ, CARBON 2.2K

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T601 ⚠	1-697-001-11	S.R.T (SMT89)
T801 ⚠	1-453-118-11	TRANSFORMER ASSY, FLYBACK (UX-2600A2)
T803	1-437-090-00	HDT

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*A-1642-083-A D BOARD, COMPLETE (KV-E3431B,E3431D)
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PART NO.	DESCRIPTION
4-200-001-01	HOLDER, IC
4-201-023-01	SPACER, INSULATING
*4-341-751-01	EYELET
*4-341-752-01	EYELET
4-812-134-00	RIVET NYLON, 3.5

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C601	1-130-202-00	FILM	0.022MF	10%	400V
C605	1-124-910-11	ELECT	47MF	20%	50V
C608	1-124-903-11	ELECT	1MF	20%	50V
C612	1-137-046-11	FILM	0.0082MF	10%	400V
C613	1-129-722-00	FILM	0.047MF	10%	630V
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-126-943-11	ELECT	2200MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-162-116-00	CERAMIC	680PF	10%	2KV
C618	1-162-134-11	CERAMIC	470PF	10%	2KV
C619	1-102-030-00	CERAMIC	330PF	10%	500V
C620	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-128-320-11	ELECT	2200MF	20%	16V
C623	1-102-030-00	CERAMIC	330PF	10%	500V
C624	1-126-800-51	ELECT	2200MF	20%	35V
C625	1-126-800-51	ELECT	2200MF	20%	35V
C627	1-137-124-91	FILM	0.0047MF	5%	63V
C628	1-124-910-11	ELECT	47MF	20%	50V
C629	1-124-907-11	ELECT	10MF	20%	50V
C631	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C632	1-137-128-91	FILM	0.022MF	5%	63V
C633	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V
C636	1-137-132-91	FILM	0.1MF	5%	63V
C640	1-126-233-11	ELECT	22MF	20%	50V
C801	1-137-116-11	FILM	1MF	5%	200V
C803	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C804	1-137-130-91	FILM	0.047MF	5%	63V
C805	1-124-902-00	ELECT	0.47MF	20%	50V
C806	1-124-907-11	ELECT	10MF	20%	50V
C808	1-162-114-00	CERAMIC	0.0047MF		2KV
C809	1-124-808-51	ELECT	10MF	20%	200V
C810	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C812	1-162-318-11	CERAMIC	0.001MF	10%	500V
C813	1-108-704-11	MYLAR	0.1MF	10%	200V
C815	1-162-117-00	CERAMIC	100PF	10%	500V

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Ne las remplacer que par une piece portant le numero specifie.

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Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R824	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R825	1-216-342-11	METAL OXIDE	0.27	5%	1W	F
R826	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R828	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R829	1-249-429-11	CARBON	10K	5%	1/4W	F
R830	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R832	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R833	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R834	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R835	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R836	1-216-242-00	METAL GLAZE	68K	5%	1/8W	
R837	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R838	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R839	1-216-062-00	METAL GLAZE	3.6K	5%	1/10W	
R841	1-249-397-11	CARBON	22	5%	1/4W	F
R842	1-215-890-11	METAL OXIDE	470	5%	2W	F
R845	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R846	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R847	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R849	1-215-881-11	METAL OXIDE	15	5%	2W	F
R851	1-247-743-11	CARBON	220	5%	1/2W	F
R852	1-249-389-11	CARBON	4.7	5%	1/4W	F
R853	1-249-443-11	CARBON	0.47	5%	1/4W	F
R854	1-249-443-11	CARBON	0.47	5%	1/4W	F
R855	1-202-818-00	SOLID	1K	10%	1/2W	
R858	1-249-425-11	CARBON	4.7K	5%	1/4W	
R864	1-216-101-00	METAL CHIP	150K	0.50%	1/10W	
R865	1-247-901-11	CARBON	820K	5%	1/4W	
R866	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R867	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R868	1-249-428-11	CARBON	8.2K	5%	1/4W	
R871	1-249-493-11	CARBON	56K	5%	1/2W	
R872	1-249-393-11	CARBON	10	5%	1/4W	F
R873	1-249-393-11	CARBON	10	5%	1/4W	F
R876	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R877	1-215-880-00	METAL OXIDE	10	5%	2W	F
R878	1-215-883-11	METAL OXIDE	33	5%	2W	F
R884	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R889	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R893	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R894	1-216-264-00	METAL GLAZE	560K	5%	1/8W	
R895	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R897	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R898	1-216-262-00	METAL GLAZE	470K	5%	1/8W	
R1501	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R1502	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W	
R1503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1504	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1508	1-216-684-11	METAL CHIP	24K	0.50%	1/10W	
R1509	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1510	1-249-382-11	CARBON	1.2	5%	1/4W	F
R1511	1-215-887-00	METAL OXIDE	150	5%	2W	F
R1512	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R1513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1551	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV601	1-241-628-11	RES, ADJ, CARBON 2.2K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T601	⚠ 1-697-001-11	S.R.T (SMT89)	
T801	⚠ 1-453-123-11	TRANSFORMER ASSY, FLYBACK (UX-2602A3)	
T803	1-437-090-00	HDT	
T895	1-413-059-00	TRANSFORMER, FERRITE (DFT)	

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MISCELLANEOUS
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<KV-E2531B,E2531D>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠ 1-402-746-21	COIL, DEGAUSSING	
	⚠ 1-451-311-21	DEFLECTION YOKE (Y25FXA)	
	1-452-032-00	MAGNET, DISK; 10MM ϕ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
	1-504-151-11	SPEAKER (7.5X13CM)	
	1-544-767-11	SPEAKER (13CM)	
	⚠ 1-590-460-11	CORD, POWER (WITH CONNECTOR)	(KV-E2531B)
	⚠ 1-590-501-11	CORD, POWER (WITH NOISE FILTER)	(KV-E2531D)
	1-696-406-11	CABLE, SPEAKER (WITH GROMMET)	
	1-696-407-11	CABLE, SPEAKER (WITH GROMMET)	
	1-696-409-11	CABLE, SPEAKER (WITH GROMMET)	
V901	⚠ 8-733-231-05	PICTURE TUBE (A59JWC61X)	

<KV-E2931B,E2931D>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠ 1-402-747-21	COIL, DEGAUSSING	
	⚠ 1-451-313-21	DEFLECTION YOKE (Y29FXA)	
	1-452-032-00	MAGNET, DISK; 10MM ϕ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
	⚠ 1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	
	1-504-151-11	SPEAKER (7.5X13CM)	
	1-544-767-11	SPEAKER (13CM)	
	⚠ 1-590-460-11	CORD, POWER (WITH CONNECTOR)	(KV-E2931B)
	⚠ 1-590-501-11	CORD, POWER (WITH NOISE FILTER)	(KV-E2931D)
	1-696-406-11	CABLE, SPEAKER (WITH GROMMET)	
	1-696-407-11	CABLE, SPEAKER (WITH GROMMET)	
	1-696-409-11	CABLE, SPEAKER (WITH GROMMET)	
V901	⚠ 8-733-831-05	PICTURE TUBE (A68JYL61X)	

<KV-E3431B,E3431D>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠ 1-402-748-11	COIL, DEGAUSSING	
	⚠ 1-451-315-11	DEFLECTION YOKE (Y34FXA)	
	1-452-032-00	MAGNET, DISK; 10MM ϕ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
	⚠ 1-452-579-11	NECK ASSY, PICTURE TUBE (NA322)	
	1-504-151-21	SPEAKER (7.5X13CM)	
	1-544-767-11	SPEAKER (13CM)	
	⚠ 1-590-460-11	CORD, POWER (WITH CONNECTOR)	(KV-E3431B)
	⚠ 1-590-501-11	CORD, POWER (WITH NOISE FILTER)	(KV-E3431D)
	1-696-408-11	CABLE, SPEAKER (WITH GROMMET)	
	1-696-410-11	CABLE, SPEAKER (WITH GROMMET)	
V901	⚠ 8-733-723-05	PICTURE TUBE (A80JYV50X)	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-396-41	FERRITE BEAD INDUCTOR	
L605	1-459-442-00	COIL (WITH CORE)	
L606	1-459-442-00	COIL (WITH CORE)	
L609	1-410-396-41	FERRITE BEAD INDUCTOR	
L622	1-412-533-21	INDUCTOR 47UH	
L623	1-412-533-21	INDUCTOR 47UH	
L802	1-408-947-00	INDUCTOR 2.2MMH	
L803	1-420-872-00	COIL, AIR CORE	
L808	1-412-549-11	INDUCTOR 1MMH	
L809	1-459-111-00	COIL, DRAM CORE (CDI)	
L809	1-459-111-00	COIL, DRAM CORE (CDI)	
L810	1-460-197-11	COIL, FERRITE (PMC)	
L811	1-412-519-11	INDUCTOR 3.3UH	
L812	1-412-519-11	INDUCTOR 3.3UH	
L813	1-412-519-11	INDUCTOR 3.3UH	
L817	1-402-684-11	HLT	
L1501	1-412-531-31	INDUCTOR 33UH	
L1502	1-412-525-21	INDUCTOR 10UH	
L1503	1-412-531-31	INDUCTOR 33UH	
		<IC LINK>	
PS601⚠	1-532-686-91	LINK, IC 2.7A	
PS602⚠	1-532-686-91	LINK, IC 2.7A	
PS603⚠	1-532-686-91	LINK, IC 2.7A	
PS604⚠	1-532-686-91	LINK, IC 2.7A	
		<TRANSISTOR>	
Q601	8-729-016-14	TRANSISTOR BUZ91A-E3155	
Q602	8-729-177-22	TRANSISTOR 2SB772-Q	
Q603	8-729-900-53	TRANSISTOR DTC114EK	
Q610	8-729-216-22	TRANSISTOR 2SA1162-G	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-016-32	TRANSISTOR 2SC4927-01	
Q802	8-729-140-97	TRANSISTOR 2SB734-34	
Q804	8-729-216-22	TRANSISTOR 2SA1162-G	
Q805	8-729-216-22	TRANSISTOR 2SA1162-G	
Q806	8-729-011-00	TRANSISTOR 2SK1916-02F87	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q806	
Q807	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q812	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q813	8-729-140-96	TRANSISTOR 2SD774-34	
Q818	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1502	8-729-901-01	TRANSISTOR DTC144EK	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-901-01	TRANSISTOR DTC144EK	
		<RESISTOR>	
JR001	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR002	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR003	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR004	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR005	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR500	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR501	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR502	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR503	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR504	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR505	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR506	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR507	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR508	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR509	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR510	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR511	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JW208	1-217-587-00	RES, SHORT 0.01 1/4W	
R601	1-216-353-00	METAL OXIDE 2.2 5% 1W	F
R602	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R603	1-215-901-00	METAL OXIDE 33K 5% 2W	F
R604	1-247-883-00	CARBON 150K 5% 1/4W	
R605	1-216-313-00	METAL GLAZE 8.2 5% 1/10W	
R606	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R607	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R608	1-215-928-11	METAL OXIDE 68K 5% 3W	F
R609	1-216-005-00	METAL GLAZE 15 5% 1/10W	
R610	1-247-885-00	CARBON 180K 5% 1/4W	
R611	1-249-405-11	CARBON 100 5% 1/4W	
R612	1-247-894-11	CARBON 430K 5% 1/4W	
R613	1-216-260-00	METAL GLAZE 390K 5% 1/8W	
R614	1-216-487-11	METAL OXIDE 12K 5% 3W	F
R615	1-216-487-11	METAL OXIDE 12K 5% 3W	F
R617	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R618	1-216-449-11	METAL OXIDE 56 5% 2W	F
R620	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R621	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R622	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R623	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R625	1-216-449-11	METAL OXIDE 56 5% 2W	F
R626	1-216-635-11	METAL CHIP 220 0.50% 1/10W	
R627	1-249-398-11	CARBON 27 5% 1/4W	F
R628	1-215-464-00	METAL 62K 1% 1/4W	
R629	1-215-464-00	METAL 62K 1% 1/4W	
R630	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R631	1-216-397-11	METAL OXIDE 4.7 5% 3W	F
R633	1-249-415-11	CARBON 680 5% 1/4W	
R634	1-215-477-00	METAL 220K 1% 1/4W	
R635	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R636	1-216-452-11	METAL OXIDE 180 5% 2W	F
R637	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R638	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R639	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R640	1-207-905-00	WIREWOUND 0.27 10% 2W	F
R651	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R801	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R802	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R804	1-217-778-11	FUSIBLE 1K 5% 1W	F
R805	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R806	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R807	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R808	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R809	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R811	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R812	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R813	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R814	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R815	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R819	1-247-755-11	CARBON 1.8K 5% 1/2W	F
R820	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R821	1-216-481-11	METAL OXIDE 1.2K 5% 3W	F
R822	1-216-481-11	METAL OXIDE 1.2K 5% 3W	F
R823	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		ACCESSORIES AND PACKING MATERIALS *********************************	
		<KV-E2531B,E2531D>	
	A-1678-043-A	BOX ASSY, WOOFER	
	A-1678-044-A	BOX COMPLETE ASSY (L)	
	A-1678-047-A	BOX COMPLETE ASSY (R)	
	3-755-382-81	MANUAL, INSTRUCTION (FRENCH)	(KV-E2531B)
	3-755-382-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/ FRENCH/DUTCH/ITALIAN/PORTUGUESE)	(KV-E3531D)
	*4-201-012-02	CUSHION (UPPER) (ASSY)	
	*4-201-013-01	CUSHION (LOWER) (ASSY)	
	*4-201-015-04	INDIVIDUAL CARTON	
	*4-380-340-01	BAG, PROTECTION	
		<KV-E2931B,E2931D)	
	A-1678-040-A	BOX COMPLETE ASSY (R)	
	A-1678-041-A	BOX COMPLETE ASSY (L)	
	A-1678-043-A	BOX ASSY, WOOFER	
	3-755-382-81	MANUAL, INSTRUCTION (FRENCH)	(KV-E2931B)
	3-755-382-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/ FRENCH/DUTCH/ITALIAN/PORTUGUESE)	(KV-E2931D)
	*4-200-036-02	INDIVIDUAL CARTON	
	*4-200-041-02	CUSHION (UPPER) (ASSY)	
	*4-200-042-01	CUSHION (LOWER) (ASSY)	
	*4-384-027-01	BAG, PROTECTION	
		<KV-E3431B,E3431D>	
	A-1678-038-A	BOX COMPLETE ASSY (RIGHT)	
	A-1678-039-A	BOX COMPLETE ASSY (LEFT)	
	A-1678-050-A	BOX ASSY, WOOFER	
	*X-4200-082-1	CUSHION ASSY, FRONT	
	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
	1-506-450-11	PLUG, AERIAL CONVERSION	(KV-E3431B)
	4-200-975-51	MANUAL, INSTRUCTION (FRENCH/GERMAN/ ITALIAN)	(KV-E3431B)
	4-200-975-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/ FRENCH/DUTCH/ITALIAN)	(KV-E3431D)
	*4-202-175-01	CUSHION (UPPER) (ASSY)	
	*4-202-178-01	TRAY	
	*4-202-179-01	INDIVIDUAL CARTON	
	*4-202-180-01	CUSHION (LOWER)	
	*4-202-181-01	PALLET	
	*4-388-954-01	BAG, PROTECTION	
	*4-396-077-01	JOINT	
		REMOTE COMMANDER	
	1-693-176-11	REMOTE COMMANDER (RM-830)	(KV-E2531B,E2531D,E2931B,E2931D)
	1-466-804-11	REMOTE COMMANDER (RM-832)	(KV-E3431B,E3431D)
	9-903-466-01	POCKET COVER (FOR RM-830,RM-832)	